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Original Lectures.

ARTICLE I.

CHRONIC RHEUMATIC CARDITIS; SENECIO AUREUS AS A REMEDY IN THE RHEUMATIC DIATHESIS, ETC. Clinical Lecture delivered in the Medical Wards of the Mercy Hospital, June 13, 1879. By N. S. DAVIS, M.D., of Chicago.

Gentlemen of the class: On this, the last clinical day of the present college term, I bring to your attention a case which will fairly represent a class of cases sufficiently numerous and important to claim your careful study.

This man, aged about 50 years, a resident of the interior of the state, by occupation a farmer, and presenting the outward appearance of good physical development and fair nutrition, was admitted to the hospital yesterday, and gave the following history and symptoms: Had enjoyed good health until about five years since, when after severe exposure to cold and wet he was attacked with sub-acute articular rheumatism. From this he apparently recovered in a few weeks and resumed his ordinary work, but has ever since been subject, especially during the cold and wet

seasons of the year, to more or less rheumatic pains, more generally in the back, hips and left side of the chest. During the last year, he says, he has felt almost constantly, a dull, heavy, uncomfortable feeling below the left nipple, and sometimes extending to the left shoulder and arm; with shortness of breath and excited action of the heart on walking quick or going up stairs. It is chiefly on account of the continuance and rather steady increase of these latter symptoms, that he has sought admission to the hospital for treatment. He has some degree of constipation, and much of the time his food is slow in digesting, giving rise to gaseous eructations and sometimes vomiting. The urinary secretion is nearly natural, though sometimes scanty and highly colored. Percussion reveals nothing abnormal in the chest, unless it be a very slightly increased area of the cardiac dullness. Neither does auscultation afford any morbid sounds connected with respiration, but if each of you will in turn take the stethoscope and listen over the cardiac region, you will hear a well marked, moderately rough sound immediately following the systole or contraction of the ventricles, and rendering the interval between the first and second sounds of the heart indistinct. If you adjust the funnel of your stethoscope to different parts of the cardiac space, you will find the morbid sound or bellows murmur most loud and distinct about one inch in a direct line below the left nipple, which is nearly over the apex of the heart. This, with the fact that the sound follows the systole, indicates the mitral valve or left auriculo-ventricular opening as the special place of obstruction. While listening to the cardiac sounds, you also become conscious that the impulse of the heart is greater than natural, because it imparts undue motion to the walls of the chest. By this increased force of impulse, coupled with some increase in the area of cardiac dullness before mentioned, it is evident that there is moderate hypertrophy of the muscular structures, as well as thickening of the mitral valve, in this case. It is equally evident, from the history of the patient, that these pathological conditions have originated from rheumatic inflammation involving the endocardial membrane of the left cavities of the heart, probably commencing with the first attack of general rheumatic fever four or five years since. It may have

escaped attention at that time, and so far disappeared with the subsidence of that general attack as to leave only slight thickening and irritability of the cardiac valve, yet each subsequent renewal of rheumatic trouble has increased this, until the cardiac changes have now become well marked and permanent. Such cases as this, strikingly illustrate the importance of the injunction I urged upon you so emphatically when lecturing on the general subject of rheumatism, namely, that the physician while attending any case of acute or subacute rheumatism, should note the condition of the heart by careful auscultation at every visit. He should do so, not merely because the cardiac structures become so frequently involved, but because early detection, followed by judicious and persistent treatment, will generally prevent those changes, that if neglected are almost certain to become permanent, and, sooner or later, disastrous to the patient.

Pathology: You will best understand the nature and tendency of the cardiac changes in this and similar cases, if you recall what has already been taught you in regard to the nature and effects of rheumatic inflammation in other structures. The exudations in rheumatic inflammation are pre-eminently plastic, leading readily to thickening and induration of the fibrous or connective tissues in any part of the body. The thickened and hardened condition of the ligaments of the smaller joints in the hands and feet, resulting from persistent or frequently recurring rheumatic attacks, is familiar to you all.

So when the endocardial membrane lining the left cavities of the heart, of which the mitral valve is a part, becomes the seat of rheumatic inflammation, strictly parallel changes result. If the inflammation assumes a chronic form, or frequently recurs, the consequent thickening and hardening of the membrane, especially that part of it entering into the valve, becomes permanent, and necessarily presents more or less obstruction to the easy flow of the blood from the left auricle into the ventricle.

It is this obstruction, presented by the altered state of the valve, that causes the rough or bellows murmur you have heard just after the impulse or systole, in the case before you. The obstruction thus established between the left auricle and ventricle constantly tends to keep the auricle over-full of blood, and the

ventricle correspondingly deficient in its supply. In the early part of the history of such cases, while the obstruction is slight, the patient feels but little inconvenience while quiet and the heart is acting slowly, because under such circumstances the ventricle receives a fair supply of blood between each systolic contraction. But when by active exercise, exertion, or mental excitement these contractions are made more frequent, the walls of the ventricle contract on an inadequate supply of blood, and not only the auricle, but the pulmonary veins also, become over full and the breathing oppressed. A little reflection will show you that such a state, continuing through months and years, would almost necessarily induce a progressively increasing concentric hypertrophy of the walls of the left ventricle, with diminution of its capacity, and corresponding increase of capacity and fullness of the left auricle and pulmonary veins, with more or less constant shortness of breath and sense of oppression in the chest. When this stage has arrived, and the movable volume of air received into the air cells of the lungs is diminished by the habitual pressure of the over-full pulmonary capillaries, the blood itself becomes imperfectly oxygenated and decarbonized, and consequently cannot afford the natural degree of stimulus, either to nervous sensibility or secretory action. From this come feelings of languor, lassitude and indisposition to active physical or mental exertion, on the one hand; and on the other, indigestion from deficient gastric secretion, constipation of the bowels, and scantiness of urine. Finally, under the continuance and steady progress of these influences, the patient's breathing becomes so oppressed that he cannot assume the recumbent position at night; the heart's action becomes unsteady or intermitting; the digestive organs much disordered; the urinary secretion very scanty, and often albuminous; the general capillary circulation enfeebled, with general tendency to oedema, especially of the lower extremities or whatever parts are most dependent. Having reached this stage, the further progress of the case places the patient in an extremely distressing condition. He is constantly weary and desirous of sleep, yet so oppressed for breath that the sense of suffocation arouses him every few moments, both night and day; the urine becomes so nearly suppressed that nervous twitchings and other symptoms

of uremic poisoning are often present; and the oedematous infiltrations not only fill all the exterior areolar tissues, but the serous cavities, and the pulmonary tissue, the latter often being the immediate cause of a fatal result. Cases of this form of cardiac disease vary greatly in the rapidity of their progress. Some will pass through all the stages I have described to you, reaching a fatal result in one or two years; while others will progress so slowly that the patients are able to transact business most of the time for ten or fifteen years, and do not reach a fatal result in twenty years.

Prognosis: After the detailed account I have given you concerning the nature and extent of the changes taking place in the class of cases under consideration, it is hardly necessary to add that the prognosis, so far as it relates to ultimate recovery, is always unfavorable. Yet very much can be done by judicious treatment, especially in such cases as are brought under the care of the physician early, both to mitigate the suffering of the patient and to prolong his life. So true is this, that no patient of this kind should be abandoned by his physician, merely because he cannot be actually cured; for the obligation to mitigate suffering and prolong life, is as binding upon the physician as is that of curing disease. And I may add, that in no class of incurable diseases can the judicious and skillful physician be of more real service to his patient, than in those involving the structure and functions of the heart.

Treatment: I need only remind you that in a primary attack of rheumatic endocarditis, the most efficient anti-rheumatic treatment should be promptly resorted to and continued, if possible, until all physical signs of cardiac trouble have ceased. But when called to cases like the one before you, in which the acute or primary attack has long since passed by, and the cardiac changes have become permanent, what are the indications for treatment, and what the means best calculated to fulfill those indications? If you have clearly perceived the nature and order of progress of the symptoms, as I have endeavored to describe them to you, there should be no difficulty in your recognizing two well defined indications to be constantly kept in view in this and all similar cases; namely, to counteract or overcome the rheumatic susceptibility by

which the patient is made constantly liable to exacerbations from slight atmospheric changes, or other causes; and to keep the heart's action sufficiently slow to allow sufficient blood to pass through the obstructed auriculo-ventricular opening to fill the ventricle between the systoles.

In proportion as we can accomplish the first, we shall prevent or retard the further thickening of the valvular structure and the parts to which it is attached. And so long as we can maintain the second, we shall keep the patient free from dyspnoea and the whole train of evils resulting from the incomplete oxygenation and decarbonization of the blood.

The means best adapted for overcoming the rheumatic diathesis or morbid susceptibility of the structures, embrace both hygienic and remedial agents. For instance, the patient should have a warm alkaline bath every three or four days. When he comes out of the bath, the water should be wiped off quickly with ordinary towels, and the whole surface briskly rubbed with dry, soft flannel. This brings a pleasant glow of electric warmth to the surface, and renders the skin healthy and active.

Thick and warm underclothes of flannel should be worn all the year except July and August, during which months light cotton-flannel may be substituted in place of the thicker cloth.

The air of the patient's apartments should be dry and well ventilated; his exercise moderate but habitual; his diet plain, nutritious, but not rich or highly seasoned; and his drinks unstimulating. To these may be added a protracted use of some medicines, with a reasonable expectation of benefit.

In these purely chronic cases I have, for many years, used different preparations of the *cimicifuga*, the *phytolacca*, and the *stramonium*, either singly or combined in various proportions, and with considerable benefit. Nearly two years since, my attention was called to the use of the *senecio aureus* as a remedy of value in relieving chronic rheumatic irritation in any of the fibrous structures of the body, and especially for removing that state of morbid sensitiveness we call the rheumatic diathesis. I had under treatment at the time a delicate girl, nine years of age, who had been attacked four years previously with severe acute rheumatism, that involved in its progress nearly all the articulations and the

left side of the heart. After a protracted period of suffering, she recovered, leaving a well marked rough bellows murmur over the left cardiac region, with the usual embarrassment on taking active exercise. She had continued extremely sensitive to atmospheric changes, and had renewed attacks of rheumatic fever, with swelling and pain in some of the articulations, and increased cardiac disturbance, two or three times a year, in spite of the most vigilant precautions. She spent one of the winters in Florida, but had a renewal of the rheumatism in a few weeks after her return. It was at this time that a friend of the child's father told him, if he would get some *senecio aureus* root, put it into whisky, and give the girl some three times a day, it would cure her. The positive assurances of the friend evidently made an impression on the father's mind, and induced him to call my attention to the matter. On referring to such books as were at hand, I found the article named in the list of secondary articles of the *Materia Medica*, with no other account of its virtues than the statement that it was reputed to possess moderate diaphoretic and diuretic properties. Thinking that it would do no harm to gratify the father's desire to try the remedy, and finding no preparation of it in the drug-stores except a small quantity of fluid extract, the little patient was put upon the use of this, commencing with 0.3 C. C. three times a day. Subsequently some fresh root was procured, and a perfectly reliable fluid extract prepared for her use. The dose was gradually increased to 0.6 C. C., and its use was continued faithfully seven or eight months. No other remedies were used, and no changes were made, either in hygienic management or residence; but from the time she commenced to take the remedy, until the present time — nearly two years — she has not had the slightest return of rheumatic irritation, and has slowly increased in flesh and strength, and is now able to exercise quite freely with her playmates. There is still an audible murmur over the left side of the heart, but much less rough and harsh than two years ago. At no time during the use of the remedy has there been observable any active disturbance of the functions of the system. From the first, her appetite began to improve, and the functions of the skin, kidneys and bowels have been performed with entire regularity. Only once has there been

need of medical interference, and that only for two or three days, on account of slight sore throat.

Of course the result in this case, standing alone, would prove nothing. The use of the remedy and the subsequent change in diathesis might be a mere coincidence. But during the past year or eighteen months I have prescribed the remedy in the form of fluid extract in a large number of cases, and with sufficiently favorable results to justify you and the profession generally, in making a thorough investigation concerning its value and remedial properties.

While on this subject, there is one important error concerning which I wish to caution you, and that is, the tendency, when treating chronic diseases, and especially when endeavoring to correct morbid diathesis or constitutional conditions, to change remedies too often. We are apt to forget that most of these conditions are the result of slowly acting causes, and involve alterations in the inherent properties of the tissues that can be changed back in the direction of health only by slow and persistent influences, both of a hygienic and medicinal character.

The *senecio aureus* is a plant that grows in sufficient quantities throughout the northern belt of the United States, and is familiar to medical botanists.

In fulfilling the second indication, namely, to keep the systolic action of the heart slow enough to allow the blood to pass fully from the left auricle into the ventricle, and thereby prevent too much fullness of the pulmonary veins, we must rely upon the judicious regulation of the patient's exercise, both mental and physical, and on the employment of such sedatives as will control the vascular excitement with the least tendency to impair the functions of digestion and assimilation. If possible, the mind of the patient should be occupied with some light, cheerful business, that does not involve intensity of application or anxiety; and all his physical exercise should be light, habitually in the open air, but studiously avoiding all hurry or sudden violence. So long as the functions of respiration and digestion remain good, and the action of the heart steady, no special cardiac sedatives may be necessary. But whenever the obstruction is such that the action of the heart becomes habitually frequent or unsteady, and the

breathing short and oppressed from slight exercise, a judicious use of digitalis will be of great value. For an adult, it is well to begin with doses of 1.3 C. C. of the ordinary tincture, or 0.8 C. C. of a good fluid extract, and repeat it every four hours until the pulse is reduced a little below the natural standard of frequency; then lengthen the interval between the doses, just enough to maintain the steady, slow beat, without further depression. The greater permanency of the action of the digitalis, and its less liability to disturb the stomach, make it preferable to most of the recognized arterial or cardiac sedatives, in this class of cases. In addition to these general indications, nearly all the cases that come under the observation of the physician require more or less collateral attention to the digestive organs and kidneys. You will remember that the patient before you suffers more or less from indigestion, characterized by acid and gaseous eructations and sometimes vomiting, with more or less constipation. To correct this, something that will act as an antiseptic and sedative to the irritability of the gastric mucous membrane is needed. I have found nothing that would fulfill these requirements better than small doses of carbolic acid and gelseminum, given just before each meal and at bed-time. Indeed, we may include nearly all the remedies indicated in the case before you, in the following prescription:

R _x	Acid carbolic (crystal).....	0	40 grams.
	Glycerine (pure).....	16	00 “
	Tinct. gelseminum	16	00 “
	Tinct. digitalis.....	32	00 “
	Fl. ext. senecio au.....	96	00 “

Mix.

Give five grams, or an ordinary teaspoonful, in a little water, just before each meal and at bed-time. The steady use of this, with due attention to diet and exercise, and the avoidance of all use of alcoholic drinks and tobacco, will probably do as much to counteract the rheumatic diathesis, regulate the action of the heart, improve digestion, and thereby prolong the life and usefulness of the patient, as any course of treatment we could suggest.

Original Communications.

ARTICLE II.

A CASE OF TRANSFUSION. By F. W. EPLEY, M.D., New Richmond, Wis.

Mrs. B., married, aged 37, (?) was the mother of four children, two of whom are now living, the other two having died in infancy, of a wasting disease; "they simply pined away and died without a symptom of pain or local trouble;" at least it was so stated. Mrs. B. usually enjoyed good health until her present sickness, with the exception of a "spell of ill health" when about 19 years of age. Her present sickness began about the middle of December, 1877, with an attack of what was then thought to be biliousness, from which she partially recovered, so as to be able to walk about some; soon, however she began to decline, growing anæmic, weak and languid; she seemed to be wasting away exactly as her children had done. She was treated by her home physician without effect; then went into the hands of a homœopathic physician, in whose care she remained until April 18, 1878, when I saw her for the first time, and was struck by the peculiar, almost post mortem appearance of the patient. The expression of her face was one not easily forgotten. Her eyes were glassy, sclerotic, very white; lips, gums, tongue and conjunctival membrane white and dry; lips and tongue peeling; cheeks flabby; skin dry and scaly. Has no appetite; eats a little potato and sucks the juice from a little steak; and even the small amount of food taken passes right through the canal in almost exactly the same condition in which it was taken; in fact she digests nothing—has six or seven loose discharges from the bowels daily. Complains of no pain or soreness anywhere; says there is none. Converses

very plainly but slowly; sentences disconnected. Upon examination, as I placed my open hand over the epigastrium, making gentle but firm pressure, she exclaimed, "Oh, he's found it." There was no soreness to be found anywhere else, but she could bear but the slightest pressure at this point without producing a most unbearable, sickening pain. I immediately put her upon lactopeptine and bismuth, with tonics, dialyzed iron, etc., with the effect of arresting in a measure the diarrhœa, but otherwise her condition remained about the same, except that she grew daily weaker, so that, by the 27th of April, she could hardly move her hand or head. Medicine had little, if any, effect upon her. The indications plainly were to get her to make blood. This I could not do, so I decided to introduce by artificial means the much needed element. Accordingly (having read in the January number of the *Monthly Abstract of the Medical Sciences* for 1877 an article in which the hypodermic injection of blood was followed by good results) on the 27th of April I proceeded to introduce about 8 C. C. of defibrinated blood under the skin of my patient's arms, making four punctures, the last of which I tried to introduce directly into a vein, and happened to succeed — not a very easy thing to do, I have since discovered, even when the veins were well distended. She hardly felt the several punctures. An ecchymosed spot was produced at the point of each puncture, except the one which entered the vein. The following day I thought I could detect an increase in pulse rate and volume. I find recorded in my diary for that date: "Pulse much stronger, slower and fuller to-day, but she has failed otherwise. Passes urine and fæces involuntarily." Ordered vitalized phosphates added to her list of remedies, which now amounted to lactopeptine and dialyzed iron. On the 29th Dr. Otis Hoyt saw the patient with me, said he could suggest nothing except another operation soon.

May 1st. — Is delirious; takes nourishment very badly; does not arouse readily.

I would here express my regrets that my notes on the case are so brief; I had so little hope of saving or helping my patient, that I had little care about making notes. After the introduction of the first blood on the 27th, the skin seemed gradually to

become more sensitive, and when, on the 5th of May, I repeated the operation, she felt the pain very acutely. The blood was taken from the arm of my student and assistant, Mr. Jackson (as, indeed, was the first), defibrinated and kept, by means of a water bath, at a temperature not less than 33° C., and was introduced by six punctures directly, or as nearly so as possible, into the vein, about 2 C. C. at each puncture. The next day there was a very noticeable increase in volume and strength in the pulse; also a slowing. From this time forward she steadily improved; the effect being rather a decided and lasting tonic or stimulant to the whole organism, than otherwise.

On the night of May 9, I was summoned in great haste, and found her suffering very acutely from phlebitis in the left lower extremity (temperature 103° F.— 39.5° C.—pulse 120), which gradually subsided under appropriate treatment. Afterward, during her convalescence, she had repeated attacks of local inflammations, such as pleuritis, pneumonitis, etc.; not very severe in character, but causing considerable pain at the time. Notwithstanding all this she steadily and daily improved, until, on the fifth day of the July following I took her out to ride. Has had almost constant wandering neuralgic pains the past two months, but these are subsiding now. After her first ride, she rode a little every day, and on the 14th of July she rode over to my office, a distance of about six miles.

She continued to improve until she was better, and weighed more than she had for several years. Her cheeks were rosy, lips red, eyes bright and expressive. She enjoyed good health after this until about the middle of the following December, at times her servant girl leaving her to do all the work for five or six in the family, for six weeks at a time. She was a woman of extraordinary ambition, not only in home, but in public affairs; being even during her illness the instigator of and the leading spirit in a movement by which a very neat church was built. About the middle of December, after having overworked herself on a piece of heavy sewing, she became nauseated, soon vomited quantities of biliary matter, mucus, etc.; skin became icteric, and she began to decline. She visited me at my office several times, and I prescribed various remedies, but all to no purpose;

she gradually grew worse, and on the 30th of December I saw her at her residence, flat on her back, vomiting large quantities of biliary matter, mucus, etc. Had no appetite, sleep very much disturbed, and was unable to raise her head without nearly fainting. Prescribed strychnia, Gm. .0006, 3 times a day.

Jan. 1. Seems better in every respect, except color fading from mucous membranes. Vomits nothing, and is hungry. Sordes gathering on teeth and gums.

Jan. 3. Has vomited a large amount of ropy mucus and undigested food during the last twenty-four hours. Has no pain anywhere, but cannot have her head raised on account of vertigo. Prescribed pancreatine, and nourishing aliment, etc., continued.

Jan. 5th.—Pulse 114, temperature 38 8-10; sleeps badly and is nauseated. Raises no mucus nor bile. Movements from bowels pasty but regular. Complains of very bitter taste in mouth, especially after taking milk. Began menstruating; discharge scanty and light colored. Has no appetite; takes from one to three raw eggs a day; does not like to take milk on account of the very bitter taste it produces; constant, distressing nausea, controlled by small doses of bism. subnit., and morphia when required. Eye bright, sclerotic, snowy white, like the "celestial eye," described by good old Professor Freer.

Jan. 8th.—Great tenderness on hepatic region and right mesenteric glands; almost faints at a touch in that locality. Is vomiting again large quantities of yellow looking matter, which, however, do not respond to the tests for bile. Bowels constipated; ordered enema, to be followed shortly by beef tea per rectum, with counter irritants to epigastrium, and acid nitro-muriatic .12 C. C. every third hour; and stopped pancreatine and strychnine.

Jan. 9th.—Pulse 108, temperature 38 3-10° C., tongue pale, skin on lips dry and peeling; is drowsy all the time. Has beef tea regularly per rectum, and fluid nourishment per stomach, all she can dispose of.

Jan. 11th.—Has failed rapidly since I last saw her; seems stupid; sensibilities benumbed; eyes dull and hair dry. Vomited, last night, a large quantity of horrible-looking stuff—masses of ropy mucus, slime and a substance resembling chopped meat (which she has not eaten in nearly a week). Pulse, 120;

temperature, 38.8. She is sinking so fast I shall transfuse to-morrow.

Jan. 12th. — Transfused 10:30 a. m. Before the operation: pulse, 116, quick, weak and thready; temperature, 39.2° C.; respiration labored and sighing; sentences broken; lips, tongue and gums white, no signs of blood in them; bowels constipated; has no appetite. Passed a pretty good night, but when awakened, complained of an indescribable feeling of oppression, exclaiming in broken accents, "Oh dear! oh dear! what shall I do." Nausea constant and distressing. No salivary secretion to moisten food with, so she rolls it out of her mouth, after sucking the moisture from it. Lips covered by thick, dead skin, which peels off, leaving a pale, shriveled fold, with only the faintest tinge of a dirty pink color.

Operation. — 150 C. C. of blood was taken from the radial vein of Dr. C. F. King, who assisted me in the operation, defibrinated and kept, by means of a water bath, at a temperature not exceeding 36° C. The radial veins of each arm of the patient, respectively, having been previously partially anaesthetized locally by means of the ether spray, were opened, the canula of an instrument made by Sharp & Smith, of Chicago, expressly for this purpose, and in the form of a very large hypodermic syringe with blunt points, was inserted, and 4 C. C. injected into each vein, only 8 C. C. in all being used. This would seem a very small amount, but I am convinced that it was all the patient could stand at once, or at least, that more would have been worse than useless, for the result left nothing to be desired, and was truly marvelous. Thirty minutes after the operation the pulse fell to 98 — full, soft and regular. A sensation of warmth and tingling was felt extending to the ends of the fingers and toes. We left her one hour after the operation, calling for something to eat.

Jan. 13th. — Passed a first-rate night; slept well; had none of the feelings of oppression on waking experienced just before the operation. Felt strange sensations of prickling in arms, legs and fingers. Strange phenomena of vision occurred during the afternoon and night after the operation — "knitting needles in the air, spools of thread rolling around the room, etc." While

making my visit to-day, being momentarily out of the room, "a perfectly transparent straw" made its appearance before her, whose ends she could point out, and could bring her finger down upon it from above; said she "toyed with it for some little time; knew it was not a straw or anything else tangible, but regarded it as very singular." Pulse 98, soft and full; temperature, 38.8 C. Lips cleaned off, and show considerable color. Respiration easy. Talks with some vigor.

Jan. 14th. — Sat up over an hour to-day, with no disagreeable symptoms whatever. Appetite good. Relishes food well. Wandering pains appear, as after the first operation, nine months ago. Pulse 90; temperature, 38. Respiration normal. Voice strong and steadier, though a little tremulous yet. Disturbances of vision abating, but still exist.

Jan. 16th. — Some headache to-day. Pulse 90, and good; temperature, 37.3. Bowels moved by enema. Cheeks flushed; lips quite red. Sat up two hours to-day without fatigue.

Jan. 18th. — Sat up most of the day. Feels well; sleeps well; has good appetite; talks well, and feels strong. Pulse 90, full and strong; temperature, 37.7 C. Veins quite full and dark.

Jan. 20th. — Has sat up most of the day. Veins full; circulation splendid. Pulse, 90; temperature not taken. Eats and sleeps well. Nothing abnormal, except slight stiffness of joints.

Specimens of blood were taken at intervals, and sent to Prof. I. N. Danforth for examination; one just before operation and one 24 hours after.

From this date — Jan. 18th — she went on making a much more rapid recovery than before. But, unfortunately, her ambition domineered over her judgment. Having been twice so near the grave and recovered, she began to think she was not born to die easily, and after three months more of health, she exposed herself to the cold and fatigue, drove a vicious, awkward horse, which became frightened and backed her down an embankment into a ditch — frightening her badly, and causing severe nervous shock, sending her into another decline, into the hands of homœopathy, and the grave, on the 16th of April, 1879.

The autopsy was made 20 hours after death, and specimens of the result forwarded to Prof. Danforth on the following morning.
NEW RICHMOND, Wis., May 30, 1879.

The morbid specimens sent by Dr. Epley presented no marked lesions. The surface of the gastric mucous membrane was here and there eroded, and was everywhere extremely pale and bloodless; the same is true of the section of small intestine. The right kidney was pale and slightly granular. These several appearances were probably due to absence of assimilative power or starvation, rather than to the ravages of any active pathological process. There is a marked contrast between the microscopic appearance of the red corpuscles before and after the last transfusion. Before the transfusion they appear shriveled, pinched and irregular at their edges; a few days after the transfusion they are comparatively plump and full. There is also a slight difference in the relative number of the white corpuscles in the two specimens, the last one presenting a notably less number than the one drawn previous to transfusion. The case seems to present a strong argument in favor of transfusion in instances of extreme anæmia coupled with mal-assimilation.

I. N. D.

ARTICLE III.

THE ADMINISTRATION OF CHLOROFORM. By WM. MEACHER, M.D., of Portage, Wis.

I believe that the administration of chloroform is not rightly understood by many medical men, and many physicians, as well as patients, are afraid of it. But it is pretty certain that most if not all of this comes from the want of a proper knowledge of its use, and there is but little doubt that nearly all the deaths which have occurred under chloroform were not due to any fault of the anæsthetic, nor to any diseased condition of the patient, such as fatty degeneration of the heart, etc., as is commonly

supposed, but to faulty administration, and might have been prevented. Again, it is commonly believed that patients with disease of the lungs, or heart especially, ought not to take chloroform. Yet, as a rule, there is no objection to their taking it. I know these are broad assertions, but I am convinced that they are true. Mr. Syme used to say, that any case for operation was a case for chloroform; and Mr. Lister says, that patients with disease of the heart ought not to undergo an operation of any importance without chloroform. "It might be expected," he further says, "that chloroform in the early or exciting stage of its operation, would act upon a diseased heart like mental emotion and cause irregularity, or cessation of its contractions; this, however, does not seem to be the case, and judging from my own experience, I should say that it tends rather to remove intermission or irregularity of the pulse. On the whole I believe that chloroform, by preventing shock and mental effort during the operation, as well as anxiety before it, is in reality a great source of safety in heart disease; and if a person with known cardiac affection decides to place himself in the hands of the surgeon, so far from being unsuited for the anæsthetic, he is, before all others, the man who stands most in need of its protecting influence."

I think I am correct in saying that most physicians, in administering chloroform, direct their attention almost wholly to the pulse, while the fact is, it requires no attention at all. This is what Mr. Lister says: "The very prevalent opinion, that the pulse is the most important symptom in the administration of chloroform, is certainly a most serious mistake. As a general rule, the safety of the patient will be best promoted by disregarding the pulse altogether." It is the breathing that is to be attended to. Here lies the whole secret. Now, in watching the breathing, it is not enough to see that the respiratory movements of the chest go on—that is, expanding and contracting—but that air enters the lungs; or in other words, that the patient is really breathing; because the respiratory movements of the chest may be going on, apparently all right, yet not a bit of air going into the lungs. Right here is where the danger comes in. This is not caused, as has been supposed by the "tongue falling back," nor by paralysis of the muscles which hold up the epiglottis,

allowing it to fall back as in deglutition ; but by portions or folds of the mucous membrane at the rima glottidis—properly speaking, the aryteno-epiglottidean folds—falling together, as it were, and obstructing the opening into the larynx. Mr. Lister demonstrated this by a series of experiments upon himself. This occlusion of the air passage generally occurs before the patient is fully under the influence of chloroform, and is usually preceded by stertorous breathing, but sometimes it is not, the breathing being shut off so quietly that it is unnoticed by any one except the person on the lookout for it. This the administrator should attend to, from first to last, and when it occurs, the proper thing to be done is this : Cease the administration at once, lay hold of the tongue with a napkin or a piece of cotton cloth, to prevent the fingers from slipping, or, what is better, seize the tongue with a pair of polypus forceps, or hook a tenaculum into the base of it, and draw it out steadily and quite strongly. After this traction on the tongue has been made a very short time, the air will be heard to rush into the lungs with a loud noise, similar to the inspiratory noise a person makes in snoring, when the breathing will go on again all right, and the administration may be resumed. To illustrate this point, I must quote more from Mr. Lister : “ As an example of the risk that is run by want of close attention the respiration, I may mention the following case : A surgeon of considerable experience was giving chloroform to a patient on whom an operation was being performed, of which I was a mere spectator, but I noticed that stertorous breathing came on and gradually passed into complete obstruction, while the administrator was not aware of it. Seeing that the patient was in danger, I suggested to the giver of the chloroform the propriety of drawing forward the tongue ; he replied that this was uncalled for, and pointed to the heavings of the chest as evidence that the breathing was proceeding freely. Knowing that these efforts were doing nothing for the respiratory function and feeling that there was no time for discussion, I stepped out of my province so far as to seize the tongue myself and draw it forward, when a long and loudly stertorous inspiration demonstrated the necessity for the interference. Had the delusive movements of the chest been trusted to, it is probable that they might have continued until

the heart had become so enfeebled by the asphyxiated state as to cause no perceptible pulse at the wrist ; and had death occurred under the circumstances, the case would have been set down as one in which the heart failed first. The administrator would have been absolved from all blame, and the fatal event would have been attributed to idiosyncrasy, or to disease of the heart."

To sum up, then, a very few words will suffice for describing the proper mode of administering chloroform. Sprinkle about a drachm on the middle of a folded napkin or small towel, and hold it to the patient's nose and mouth, taking care that free space is afforded for the access of air beneath its edges ; meanwhile watch the breathing closely, and if at any time it should become obstructed or strongly stertorous, suspend the administration and draw the tongue firmly forward until the obstruction to the breathing has disappeared.

At the time Mr. Lister's article, from which I have so largely quoted, was published, he said the method I have just described had been pursued at the Edinburgh and Glasgow infirmaries, two of the largest surgical hospitals in Great Britain, for nine years, without a single accident ; and he concludes that, "chloroform in the hands of competent persons is a safe anæsthetic."

There is no doubt but ether is the safer anæsthetic, in the hands of those who do not rightly understand the administration of chloroform. For this reason, I suppose, and because it is an American discovery, it is the anæsthetic recommended by most of the medical colleges in this country. But ether is inferior to chloroform in several respects. It is generally much more disagreeable to the patient and troublesome to the surgeon, especially in private practice, and in operations requiring great delicacy of manipulation and perfect quiet of the parts being operated upon, such as operations upon the eye, etc. Also in obstetrical practice.

ARTICLE IV.

SUNDRY FACTS, OPINIONS AND SUGGESTIONS DERIVED FROM THE OBSERVATION OF FORTY CASES OF TAPEWORM. A Paper read before the Chicago Medical Society. By JOHN BARTLETT, M.D., of Chicago.

MR. PRESIDENT: — I have been led to believe that a summary of my experience, derived from the observation of a number of cases of tapeworm, would be acceptable to this Society. Accordingly I have jotted down, necessarily in a somewhat desultory manner, such facts, opinions and suggestions as seem of interest.

It is stated, in all accounts that have fallen under my notice, that the very great majority of tapeworms seen in this country are of the variety known as *tænia solium*. Just the contrary is my experience. Of about 55 tapeworms examined by me, 54 were *T. mediocanellata*, and one, *T. lata*. It is also stated that most frequently in this country the worm originates from the use of measly pork. In almost every case that I have treated, the patients stated that they were in the habit of eating rare beef, and that they seldom ate pork.

The length of the worm, it appears to me, has been grossly exaggerated. We hear of worms several hundred feet in length; and in the daily papers I have read of 600 feet of worm being extruded. To account for the disagreement in observers as to the length, I note first, that the tapeworm is very elastic, and that it has the power of contracting and extending itself.

Thus the proglottides, the segments which pass the body, elongate and contract, so that at one moment they are eight times longer than they are broad; at the next instant they are twice as broad as they are long; and the neck, which is generally as stated by writers, threadlike, sometimes shortens and thickens remarkably, as in the specimen before you. Now it is possible that a worm may be at one time 25 feet long, and at another 50; but I have never seen one which measured more than 25 feet when disentangled and laid out on the floor, and I think the majority will fall short of that measurement. As to the very long

worms which have been reported, I incline to think that they may be likened to the zeuglodon of Col. Wood's Museum. This petrification was genuine, doubtless, but its vertebrae, which coiled indefinitely around the hall, represented pieces from a whole family of zeuglodons. To my mind, there is little doubt that the very long tapeworms of authors have been constructed in a somewhat similar manner.

All the heads of *mediocanellatæ* which I have seen, but one, were black. The younger the worm—and I date its age from the length of time the patient has had it—the smaller, to a certain age, is it; and the head of one only a few months old is smaller, less dark, less firm, and less definitely defined, than that of older ones. In one or two instances, when the worm was quite young, I have hesitated to say whether the object I was regarding was the head, or not, till the lens had been used. It is, however, usually easily recognized; it is as large as the head of a pin, and can be seen fifteen feet off, by the light of a tallow dip.

There would appear to be a considerable degree of misconception regarding the head of the tapeworm. Thus, regularly educated physicians have assured my patients that the head was as large as a kernel of corn; that it was about the size of a grain of wheat; that if the head I had obtained was visible to the naked eye, it was not a genuine find, for the true head was a microscopic object; and in another instance the doctors "had taken the worm away to look for the head with the microscope."

The supposition of Bemser, that the *tæniæ solæ* by nature drop their hooks, and thus, being incapable of retaining their hold in the intestine, are discharged, seems to me erroneous. Certainly, what we know of the tenacity with which the hookless worms retain their place, would indicate that the hooklets are unnecessary, so far as retention of position in the intestines is concerned.

Manifestations of Vitality.—In cases where the vitality of the parasite was not too much destroyed, it was quite active, and might seize, by its suckers, any surface near it. Often I have observed it fastened to the wider surface of its body; once it adhered to the side of the vessel in which I was attempting to drop it, and once

it was found strongly holding to the side of the anal aperture as the patient arose from the vessel. On one occasion a rude attempt to dislodge the head when so adhering, by drawing upon the neck at some distance from the head, resulted in a laceration of the neck, the head remaining fixed to the surface of attachment. In this instance it is interesting to note that the rupture took place at the juncture of the first joint of the neck with the head. Possibly, in the plans of nature to protect the parasite, this joint is made weak that the head may survive the removal of the entire body.

A person in whose hands I once left a tapeworm floating in milk, assured me that having kept the fluid at the temperature of the hand for some time, the worm finally imbibed it, swelling up round like a whip-cord. I should add that I do not place entire confidence in this statement; certainly I have seen nothing of the sort where the milk has been kept warm for half an hour or more.

Cause. — In only one instance within my knowledge has tapeworm followed the exhibition of raw meat to infants. The late Dr. Wagner directed such food for a patient, warning the mother of the possible danger from tænia. In a few months the proglottides appeared.

One case has come to my knowledge in which the direct communicability of the disease would seem to have occurred. A patient of mine visited a country house, and while there passed a large piece of worm. The couple visited had never seen a tapeworm, and when it was known to them that their guest had just been relieved of one, they were desirous of viewing the specimen. The patient therefore washed the parasite, and laid it upon the porch, whence it was presently swept into the yard. Upon the next visit of my client to the old couple, each had a tapeworm.

Symptoms. — In some, every symptom is absent, save the annoyance of passing the pieces, and the health is perfect. In others, serious symptoms assigned to the disease by writers are noticed. In a cursory manner I will state such of these as now occur to me as having fallen under my notice. The appetite may be increased; it may be lessened; perhaps more commonly

it is variable, the patient eating but little for a number of days, and then feasting voraciously. Emaciation is in some cases marked, in others it is entirely wanting; headache, mental dullness, loss of memory and energy are observed. Pain in the bowels, generally, I think, referred to the right or left lumbar region, is quite common. Also, a sense as of something falling about in the abdomen — as of the gravitation of a knuckle of intestine, loaded with the worm, from one part of the abdominal cavity to a lower position. A feeling of something crawling high up in the rectum; a sensation as of the worm coming up into the mouth, exciting nausea. A sense of engorgement of the throat, accompanied, it was claimed, by an actual enlargement of the neck, and ending in an hystero-epileptic attack. Violent grinding of the teeth during sleep. A peculiar viscid state of the saliva, especially in the early morning; the appearance of an eruption like acne about the throat and chin. In two instances the mental irritation incident to a knowledge of the worm's presence threatened the sanity of the patient.

The irritation about the anus is sometimes distressing; one patient said to me: "I have worked all day, for 17 years, taking but little pleasure, except in my books after tea. For all this time I have, especially as soon as I sat down to read, been tormented to exasperation with this symptom. It has been to me an evil which no one who has not suffered from it can estimate."

The most remarkable case of probable dependence of a "reflex action" symptom upon tapeworm that I have encountered, is the following. It will be seen that the connection of cause and effect is not direct, but perhaps as nearly so as we often find: A young man recently married came to me to report a most remarkable condition of aspermatism. He seemed perfectly well, and had not at the time, nor had he previously had, any sexual diseases or weakness. Recollecting only one case of this condition reported by VanBuren and Keyes, I was at a loss to what cause to assign the symptom, and as to what to do to relieve it. Finally, at a venture, I asked, "What is your occupation?" Answer, "A butcher." "Have you got a tapeworm?" "No; I reckon not. What is that?" Having explained to him the

nature of the parasite, and the fact of the passage of segments ; he continued, " Oh, yes, I've got that ; I've had it a long time." I advised him to have it removed. Some months later he told me that a druggist had taken away the most of his worm, and that the old difficulty had afterward disappeared.

I have seen a number of patients who have suffered ten fold more from the medicines they have taken than from the tapeworm. The injury seems to have been done to the stomach and bowels. One patient stated that he was a year or more recovering from a large dose of turpentine, which had been taken without cure. Others complained, for more than a year after the removal of the worm, of a set of gastric symptoms, which had followed the use of a large quantity of carboic acid as a vermifuge. Occasionally, however, symptoms so referred to the medicine are really not dependent upon any damage it has inflicted, but upon some associate diseased condition. Thus, in a case occurring in the hands of a prominent practitioner of this city, the doctor got the credit of having injured his patient by excessive medication, till an autopsy, revealing chronic atrophy of the liver, relieved him of the charge.

Patients and their physicians are too apt, when the existence of a tape worm is discovered, to refer whatever symptoms may be present to it, and occasionally disappointment results, because of the continuance of these after the removal of the worm. Thus, one of my patients had disease of the kidney in a masked form. After the riddance of the guest, the symptoms of renal disease stood out more prominently and received notice. Medical men should be cautious in expressing the opinion that the newly discovered parasite is the *fons et origo* of all the ills of their patients, and chary of promises of complete relief from them.

In one of my cases, where the head was obtained and mounted on a slide by her attending physician, symptoms of a second worm appeared in 11 months. And it is worth recording, that on or about the same day upon which this patient recognized the appearance of segments, her nephew, living with her, discovered that he also was affected.

The disease occurs, as might be presumed, in families. Thus,

I have known two sisters and a brother to be afflicted with it at the same time.

Frequency. — Tapeworm, up to the last 10 or 15 years, was a rare affection — so that I have met a number of gentlemen who have practiced a quarter of a century and never treated a case. In the French army, of 250,000 men, only seven were found to be affected with it. Of late years, and according to a Southern writer, since the war, it has become greatly more common. I doubt not that there now exists one tapeworm for every 1,000 of the population of this section of the country.

Duration. — Among the patients of which I have had knowledge, in two the tapeworm had endured 17 years, in one 20 years, and in another 35 years.

Probably any number of worms may exist at once. I on one occasion knew two to pass; at another time five were extruded — they were all diminutive, apparently half-grown, and of the same size.

Diagnosis. — It has been well said that the only true diagnostic symptom of tapeworm is the passage of the joints; but the question arises: Do the segments always pass in an individual having tapeworm? For a long time I had no doubt that this question should be answered in the affirmative, but of late years I rather incline to the opinion that segments do not always pass from those afflicted with a full-grown worm. A patient of mine assured me most positively that it was only at long intervals that she found them in her discharges. The supposition that they may not appear at all times is supported by the statement of writers that they pass in greater abundance during some months than others — as in February and March, and in October and November — and also from the fact observed by Kuchenmeister, in a dead body in which a tapeworm existed, namely, while in the lower bowels no proglottides were found, on the walls of the intestines was discovered a granular matter which proved to be the ova of *tænia*. In fact, Kuchenmeister states that the segments may disintegrate in the bowels. I presume, therefore, that the absence of joints in the stools is not absolute proof that no worm is present.

In several instances I have known patients passing segments

of tapeworm to be treated for years by distinguished practitioners for thread-worms. In these cases the prescriptions had been made from the report of the patient alone.

In two instances in my practice, great alarm has been occasioned in households, because, as the mother declared, in calling for me, "The intestines of the child were all falling out." In these cases some six or ten feet of worm, doubled several times on itself, had escaped from the bowel.

Occasionally cases occur of what might be styled pseudo-tænia, in which the subjective symptoms of the presence of the parasite are well-marked, and yet entozoa are not present. The most conspicuous case of pseudo-tapeworm I ever saw was that shown me in St. Luke's Hospital several years since, by Dr. Heydock. The patient was a young woman, sent from a neighboring State. She presented a catalogue of symptoms which might be classed as those of tænia, and these additional: She had a firm conviction that she had within a monster worm or snake; most carefully she described its location, its motions, its behavior when hungry and demanding food, and with great particularity detailed the formation and color of its head, and the manner in which it opened and shut its mouth on her tissues. The other symptom was, a violent pain as from the grip of a pincer upon the inner coats of the intestines about in the site of the gall bladder. This symptom to the bystander was presented as follows: Very often, perhaps every ten minutes, during the 24 hours, sleeping and waking, the patient, however engaged the previous moment, would clasp her hand with force against the painful spot, assume the attitude and facial expression of one agonized with pain, and scream out so as to be heard a block away. She would use no article of food unless it was literally covered with red pepper, because when so peppered the worm did not torment her, as she found it to do when food was taken without the condiment.

The second patient was a well educated and very intelligent young man. His health had been poor for years. He presented almost every symptom of worms laid down in the books, and in the most aggravated form. Judging from these, this patient, of all others, would have been supposed to labor under tænia.

I can detail three symptoms only: It was a labor and pain at times to keep his eyes open; his appetite was perfectly insatiable, and if it was not immediately appeased, distress in the epigastric region became intolerable, so that he went nowhere without a basket of food. There was a decided interference with the respiratory function, involving, apparently, the diaphragm and abdominal muscles at a moment of inspiration. Let the patient be never so intently talking, every five minutes he would arise, stand with the body inclined forward, and make a rotary motion of the trunk as if endeavoring to relieve the abdomen from the sense of the clothes, at the same time, judging from the expression of the face, the entire will energy was absorbed in an effort to inspire; this act being accomplished, the sufferer would sit down and proceed with his narration, to again halt and go through with the acts described the next five minutes.

Neither of these individuals had a tapeworm. I have met several other cases where the patient was tormented with the idea of having a worm or snake in the stomach to an insane degree.

Prognosis. — It is stated by some writers that though the head may not be found after treatment a cure may yet result. This has, in several instances, occurred in my practice, but it is not generally the experience of others, so far as I can learn. The impression that in cases where all comes but the head the latter is apt to die, is probably false. I am certain that at least 100 instances have been reported to me in which "all came but the head," and the worm reappeared in due time. The fact seems to be that when the head is not found and the worm does not reappear the head has either passed unobserved or been directly killed by the dose given.

Remarks on Treatment. — The male fern in the form of ethereal extract sometimes does well. Dr. Groesbeck, who reports four successful cases with it, gives one drachm of the imported extract at 9 a. m. and one at 10.30 a. m., in a cup of milk, on an empty stomach; others have used it in this way with like success.

My experience with this remedy is not so favorable. It seemed in some cases to act quite promptly, and to expel the worm broken in many pieces, but in three such trials the worm reformed.

Some give with success large doses, four and even six ounces of pumpkin seed in emulsion. I have prescribed it several times, in these doses, with very little disturbance to the patient and with the effect of bringing the worm entire, *except the head*. For delicate persons, and for children, it is the least hurtful of remedies, and it is as efficient as some more irritant articles. As a tentative means for determining whether tapeworm exists it is the best remedy. It can be made rather pleasant to the taste and it is not irritant to the stomach. I give it in two doses, two hours apart, followed in six hours by castor oil and honey.

In conversation with physicians as well as patients I have found no remedy to be used with so much confidence as kousso. But whatever article is given, care should be taken by the physician to thoroughly advise his patient how to take the medicine, and how to antagonize sickness. Instructions should be most emphatically given to him to this effect. "It is idle for you to take this medicine without following my directions exactly. Remember, when you have an operation to use a clean chamber, and after the evacuation note if the worm be passing, if so, do not attempt to pull it out, but lie down on the floor beside the vessel till another operation occurs, or if one does not occur, take a large injection once, twice, three or four times, using, if you have it, doses of the worm medicine with the water. If the worm does not pass, send for me, letting it hang from you till I come. If circumstances render it necessary to remove the worm, draw upon it slowly and steadily. If once it is started never stop the motion; this would give the head opportunity to renew its hold; keep pulling till the very fine neck appears and then repeat the injection, and while the bowel is full of water, and if possible at the instant when its contents are discharged, draw again upon the worm, when it quite often will be washed out entire. Don't forget while you are waiting with the worm protruding to place something upon it, as the cover of the chamber, otherwise it may go back. When the worm is evacuated, make certain that no one empties the chamber before I come. Do not, out of idle curiosity, lift the worm up with a stick, or stir it, you may in this way break off and lose the head."

The better plan in the treatment of any case is to choose some

day on which one expects to be comparatively at leisure, and to call often to note how the patient gets on.

It is commonly taught that it is better to give a purgative the night before the vermifuge is to be taken. I have often followed this practice, but I have discontinued it, except in cases where constipation exists. The object in giving this preliminary purgative was to empty the bowels, so that the vermifuge might come more directly in contact with the worm; and also to render the intestines more sensitive to the cathartic action of the medicine. Experience has caused me to believe that the evacuation of the bowels does not render the worm more exposed to medication. On the contrary, the *fæces* in the normal condition being virtually insoluble in the medicines given, do not dilute them, and by occupying space in the bowels, they actually leave less opportunity for the worm to escape the poison intended for it. Again, if the bowels be irritated over much by the preliminary purgative, the vermifuge acts so promptly, in some cases, that it seems to pass from the intestines before the worm has been exposed to it sufficiently long to secure its destruction.

When the action of the remedy is most satisfactory, the parasite comes *en masse*, in such volume as to cause the patient to be aware of something unusually large passing. Invariably the worm has been so tied into knots that I have not had the patience to disentangle it. If the result be not perfectly satisfactory, it comes out lengthwise, in the vast majority of cases the tail presenting, though in one case the head came first. When the worm thus passes in the direction of its length, it may happen that as operation follows operation, more and more will be extruded, till finally the head follows the rest. More commonly, when more or less has passed, extrusion ceases; and not unfrequently, if the worm be but moderately affected, it will re-enter the bowel. I have known many feet of it thus to re-pass the sphincter.

It sometimes occurs that in the *dernier ressort* of delivering the worm by force, when it has been advancing in a promising way, it suddenly ceases to pay out, leaving the sensation of a decided and rude obstruction; in some of these cases I am satisfied that the mass of the worm in a knotted condition has been

pulled down against the sphincter, and is there arrested. It might be brought out by an injection, but that failing, I would introduce the finger, with the hope of encountering the mass, and with a purpose of turning it out, as one removes a placenta from the womb after abortion.

Sometimes, when attempting to withdraw a worm, it seems that part of the resistance is due to the clamping of the anus on the body of the parasite; in such a case, the sphincter might be distended to advantage with a suitable instrument, as a pair of bullet forceps.

When the worm is passed, if there is reason to believe that any medicine remains in the stomach — if, for instance, we have within the past two hours given a dose, and if the patient be distressed by it, as by nausea, colic, oppression of the head, etc., we should cause vomiting by simple means — as by drafts of warm water, titillation of the fauces, etc. — with the view of shortening the distress of the patient.

The detection of the head, if it be yet upon the worm, is seldom difficult. Generally it may be recognized in one minute by holding the worm in the hand after washing in clean water, and this, by tracing down the fine neck till the head is reached. Occasionally, on account of its resting in a fold of larger portions of the worm, the head has escaped observation for some minutes. It is better, where difficulty is experienced, to place the parasite on a marble slab or large dish, and proceed regularly to go from one end to the other, looking all over both surfaces of every segment, lest the head may have been detached by violence, and still remain adherent to some portion of the body. In case the worm is broken into pieces, there is no way to find the head but by straining the entire contents of the chamber through a coarse cloth. This is a most unsatisfactory plan, as there exist in the discharges numbers of objects which to a provoking degree resemble, at a glance, either the neck or head.

Dose for Children. — I had assumed that, in prescribing tapeworm remedies for children, a pro rata dose should be given, but upon reflection, I became convinced that as it was the worm for which the medicine was designed, the pro rating of the dose was not desirable, and in case the quantity of medicine given was so

reduced, no curative result could be hoped for. In other words, it seemed to me apparent that however small the host, the fact that we were "doctoring" the worm and not the patient, should not be lost sight of. Experience has led me greatly to modify this opinion; for I learned that success followed smaller doses of *tæniafuge*, than *a priori* calculation would have indicated. I at first accounted for this fact by supposing that the intestines of the child being smaller, the medicine was applied more certainly and more directly to the entozoon. But subsequent experience has led me to adopt the apparently irrational opinion that in practice the dose should be adjusted for the patient according to weakness, age, susceptibility to cathartic action, etc. For results seem to show that if the patient be affected by the smaller dose, the worm will be removed by it.

The nervous symptoms produced by some of the remedies we use, as headache, pain in the limbs, confusion of sight, etc., seem to me to be dependent solely on intestinal irritation; for let the patient vomit a residue of the medicine and pass more by the bowel, and he will immediately find great relief.

Most all the remedies used for tapeworm, induce more or less nausea and vomiting, and indeed, in some persons, the main obstacle to the cure is their inability to retain the medicine.

By accident I discovered an admirable means of overcoming this difficulty in many cases. A very delicate lady, having taken a vermifuge became most distressingly sick at the stomach, and in consequence marked prostration ensued; as in this case the presence of the parasite was seriously impairing the health, it was particularly desirable that the medicine be retained; accordingly, having used other means, I inquired for the bay rum or cologne with which to bathe the temples, when the lady earnestly inquired if she might not use chloroform. I immediately caused her to inhale a little, and after a few inspirations, she said, "It is going away, the nausea, I mean. I can feel it sink down lower and lower into the stomach, and when I get a little more under the influence of the chloroform, it entirely disappears." The patient held the anæsthetic in her hand, and as needed by the sickness, she inhaled more or less. I have several times since used chloroform for a similar purpose, and always

with success, though experience suggests that unless one is watchful, the sickness may seize the patient so suddenly that time is not allowed to effect a sufficiently decided influence of the anæsthetic. And I have reason to think that it will not succeed in all cases. One lady fell under my care by whom many remedies had been swallowed; but none had been retained more than a few minutes. Before she had taken one-half of the dose I offered her, the regurgitant action of the stomach threatened. I sat by her for three hours using chloroform against nausea, something as we do against labor pains, though giving really very little, and finally, the worm passed away.

It is the general impression among medical men, that in the act of vomiting the pylorus is closed, and that the stomach is emptied of its contents through the œsophagus alone. My experience with tapeworm remedies has demonstrated positively, that in regard at least to these medicines, this is not so; but that at each act of emesis a portion of the ingesta is thrown into the intestines. The fact upon which I base this statement is, that in some cases, where every dose was quickly vomited, the worm yet passed; and upon careful examination of the quantity of the remedy thrown off, the conclusion was reached that some was retained, while the act of vomiting was so vigorous, the medicine being sometimes ejected across the room, and so repeated, that it could not be assumed that the stomach contained any. And this idea is consistent with other facts. Thus, a patient suffering long and severely from extreme gastric irritability during pregnancy, seems for many months to eject every thing eaten; and the same may be said of some children with whooping cough; and yet vitality incompatible with the idea that all food has been rejected, remains. I doubt not that in these cases a quantity of chyme escapes into the intestine. If the position here taken be true, it has a bearing upon the treatment of certain forms of poisoning, by emesis. If this very act is liable to inject some of the poison into the bowels, the stomach pump should be preferred.

There is reason to believe that it is easier to secure an entire worm than only a short piece. Therefore, after an unsuccessful attempt, it may be better to wait till the worm has re-formed,

before a second effort at treatment is made. I have, however, twice known success to follow remedies given when the remaining portion was not more than five feet in length.

ARTICLE V.

ON FRACTURE OF THE BASIO CRANII. Read to McLean County Medical Society.

Several years ago, G. L., a tinner by trade, aged 24 years, of temperate habits, healthy, strong constitution, short figure, fell through a hatchway in the third story of a building on the square, down into the cellar, a distance of about 36 feet and was carried home almost dead. The accident happened in November, about 8 o'clock in the morning, and half an hour afterward I was called to see him, and found him in deep sopor; no external irritants would produce any reflex action of the nerves or nerve center; pulse was full and slow, 50 per minute; respiration superficial and slow, 16 per minute; eyelids were closed, pupils dilated, not reacting to light; conjunctiva could be touched, but patient did not flinch. No ribs nor bones of extremities were broken. On the head I found a wound $1\frac{1}{2}$ inches long, extending from linea aronata superior of left side, over protuberantia occipitalis, to linea aronata of the right, longer on the right than on the left side. Upon entering with the finger, the surface of the occipital bone was found smooth; no cracks could be felt. From the right ear blood ran out drop by drop, but not squirting. On offering him water, patient was able to swallow a little. He lay entirely motionless; occasionally he would take a deeper inspiration, followed by deeper expiration and moaning. When I visited him in the evening, he was almost in the same condition as in the morning; the only noticeable change was, that his pulse had become a little fuller and quicker, 58 per minute, and the body was warmer. Had passed water without knowing it; bowels had not acted. The second day till evening passed without change; he was apathic to everything and did not notice anything; still he swallowed liquid food, water and medicine when it was given;

blood still oozed out of the ear, but it was somewhat serous. Discharges from bowels, and urine, came away unconsciously. About 8 o'clock in the evening pulse and temperature rose, and he commenced to scream, like you hear it from insane persons, and he continued to cry in the same way for two consecutive days, with but little interruption.

On the fourth day the brain became a little more active; he could hear that questions were put to him, but the steady answer was, "I want to go out." He could not change his position; he retained the one which was given to him, and he only moved his arms occasionally. From the ear no blood ran out on the third day, but a pretty copious serous discharge, tinged with blood, had taken its place. This discharge became perfectly clear on the fourth day, and continued for fourteen days, in such quantity as to keep his pillow wet. Afterward it became more pus like, diminished in quantity, and slowly disappeared. On the fifth day, after having rested better the previous night, having had a three hours sleep, he showed some improvement. He was more quiet; on being asked if he knew me he said, "Yes, you are the doctor." But he could not remember my name. In fact, his memory was very weak, and he could not recollect the names of the most common things. He hunted, for example, with his arms for something, and when he was asked what he wanted, he said, "I want my legs," instead of "my pants." He could distinguish the difference between light and darkness, but could not see anything, and this blindness lasted till the tenth day after the accident. His recovery was very slow and gradual, his mental faculties, intellect, volition and memory were like those of an idiot; he would ask the same questions over and over, apparently without his understanding what was answered. Bodily he grew stronger, his appetite became good, he slept well, bowels were regular, he could move his arms easily, but not his legs, and when he was put upon these, they sank in powerless. I already feared that he would remain an idiot and cripple all his lifetime, when, four weeks after the accident had happened, the first ray of light fell into the darkness of his mind. Then he remembered a certain sum of money, dollars and odd cents, which he had left in his vest.

pocket the very morning he received the injury. From thence he continued to improve mentally and bodily, and four weeks later he was able to be up and walk a few steps, but he put his feet wide apart, to have a broader basis for the support of his body. As soon as the feet were put close together he lost the equilibrium. In the right ear hearing was imperfect; still, with the time it became good. His mental faculties became good, and after the lapse of a year, besides a dizziness when he was working on a roof, or in the sun, no sign of his dangerous sickness could be seen. The following year, the great sensibility of the brain to the heat of the sun, and the vertigo, had disappeared, and ever since he has enjoyed perfect health.

I had to deal with a case of fracture of the base of the skull, and made the diagnosis by the copious discharge of blood, followed by the long continued and copious discharge of serum, from the ear. Either alone would not warrant us to make diagnosis of fracture at the base, because there are other lesions attended by a flow of blood or serum from the ear. By keeping the following points in view, we will not be liable to make a mistake:

First. The source of blood might be a ruptured membrana tympani, or the injured mucosa lining the cavitas tympani. Both membranes are well supplied with blood vessels, but these are of small caliber, and the quantity of blood discharged from them cannot be copious, nor last long. Soon a clot will be formed, and on removing it the ruptured tympanum can be plainly seen. When we make the paracentesis membranæ tympani, only a few drops of blood escape, and this gives us the proof that the bleeding from ruptured membrane must be insignificant.

Second. More copious bleeding occurs when the anterior wall of the meatus audit. externa is broken, what happens sometimes when the condyles of the maxilla inferior are driven into it by a force striking the chin. Copious bleeding takes place, too, when the cartilaginous portion of the meatus is severed from the osseous. But in both cases the external injuries will guide us to find the proper source of bleeding.

When the base is fractured then the blood comes either from

the ruptured blood-vessels of the pars petrosa, or from the vessels of the brain and dura mater. The vessels which can be injured are numerous and important, near the posterior wall of the *cavitas tympani* passes the *sinus transversus*; its lower wall is separated from the *angularis interna* only by a thin lamella of bone. Over the roof goes the *meningeal media*, and just at the upper part of *tuba eustachii*, lies the *carotis interna*. The arteries are seldom ruptured, because they are more elastic than the veins and coherent with the bones. But the veins being firmly attached to the sulcus, in which they lie, and having less elasticity, are more frequently injured, and the bleeding must be in case of fracture at the base, copious, sometimes very profuse.

If the serous discharge would be always *liquor cerebro-spinalis*, then its presence alone would be sufficient to prove a fracture at the base. But this is not the case. There are, it is true, very few instances recorded from trustworthy authorities, where after injury to the head a serous discharge from the ear lasted for several days, and still, when the patients died either from the injury or some time afterwards from other causes, not the least sign of ruptured dura or fractured bone could be found. The explanation of this phenomenon is difficult and no satisfactory answer has been given yet. Some thought it was produced by a hypersecretion of the mucosa in consequence of inflammation, as a case is on record, where, within 24 hours after a cold, so much liquid had gathered in the cavity of the tympanum, that the *paracentesis* of the *membrana* had to be made, a large quantity of serum escaped and the flow continued for 8 days. Others said it was *perilymph*. Be it what it may, such cases are extremely rare, and in the greatest majority of cases the serum oozing out from the ear after injury to the head, is *liquor cerebro-spinalis*, and I mentioned the above examples only to show that for making a sure diagnosis of fracture at the base, we need the two moments, copious discharge of blood from the ear followed by a long-continued and copious serous discharge. Of course the absence of these symptoms does not exclude the possibility of fracture at the base, because the *membrana tympani* is not always torn, and in such cases blood and serum would find their way out

through mouth and nose, being discharged through eustachian tube.

Fractures at the base may be either direct or indirect, that is to say, the bone may either break at the place where the force hits or at a distance from it. Direct fractures are of rare occurrence in civil practice, as the base is well protected in front by the facial bones, and at the back by the strong ligaments and thick muscles of the neck. There are in fact only two places from whence it can easily be attacked, the orbital and nasal cavities. Indirect fractures happen most frequently. The mechanism of such fractures has been a mystery for a long time and many hypotheses have been brought forward to explain it. Some thought that they were produced by irradiation, others said that coup and countercoup was the cause of them. None of these explanations covered the ground. Bruns was the first to give a satisfactory explanation by the elasticity of the skull. In order to show this elasticity he put the skull between the arms of a vise, measured its diameters with a compass, applied pressure and measured again. Then he found that while he had shortened one diameter the others had been lengthened, and on taking off pressure, all diameters had returned to their former size. If the pressure was continued beyond certain limits the bone would invariably break. But these limits were not the same in all skulls. He could compress the skull of a grown person three-fifths of an inch without breaking it, while that of a boy 12 years old broke when the diameter was shortened only one-fifth of an inch. As soon as pressure ceased the fractured bones returned to their former position. So he proved the elasticity of the skull; he proved that by the force hitting the skull the diameter is shortened in the direction of the force, while the others are lengthened; and that when the force is greater than the power of expansion of the bone then the cohesion of the particles will cease—the bone will break. This happens at a place where is the least resistance, but depends, too, on the direction and intensity of the force and the form and density of the instrument by which force is applied. The base, being considerably flat and composed of several bones differing in thickness and elasticity, with angles, cavities, channels, foramina is more liable to these indirect frac-

tures than the other bones of the skull, which are more rounded, homogen in composition and more elastic. Besides this, the spinal column supporting the base and being firmly attached to a part of it, resists any considerable extension of the diameter downwards, and so the bones next to it break the easiest. For this reason we find generally a fracture of the os petrosum, which by its position and its brittleness is the most exposed. The fracture is almost always in the form of fissure, which commences at the porus acoust. intern. passes through labyrinth and tympanum and reaches the meatus auditor. externus. The course of the fissure gives us the reason why blood and liquor cerebrospinalis runs out from the ear. The dura lines the porus acoust. intern. and the arachnoidea surrounds the nerv. facialis and acousticus and accompanies them into the meatus internus itself; both membranes must be torn, when the bone breaks and a communication is established with the sub-arachnoidal space. The liquid gets into the cavity of the tympanum either through the fissure or through the ruptured fenestra ovalis, and from thence through the ruptured membrana tympani outside. Union takes place by ossification, the same way as on other bones, only it takes longer time and the union is not so firm for several causes.

1. The voluntary or involuntary action of the muscles produces at the ends of the fractured bones a slight friction, which is the proper stimulus for an accelerated flow of blood to marrow bone and periosteum (*ubi irritatio, ibi affluxus*) and consequently for plastic exudation and production of callus. No such friction takes place when the bones at the base are broken. The fragments remain in the same position, firm and rigid, in which they are left after the accident has happened.

2. The tela ossea is less active because the dura is separated from the bone by the fracture and its nutrient vessels are torn. Therefore,

3. The production of callus is left almost exclusively to the tela medullaris of diploe.

The fracture as such does not need any treatment. We do not need to coapt the ends of fragments, they remain as they are left after the injury; the bleeding stops spontaneously. If it is so profuse that we are certain of the rupture of a large vessel, then

patient will die soon. Some surgeons have tried trepanation in such cases and put a ligature round the meningeal media; but the operation was not very successful and the patients died.

Our whole attention must be directed to the lesions which the brain invariably must suffer, to commotion, contusion and compression. When after a fall or stroke on the head the injured person becomes insensible, falls down with pale face, closed eyelids, superficial respiration, slow, small, filiform pulse, we speak of a commotion of the brain. After a while patient may take a few deep inspirations, awake, open the eyelids and get up; when trying to walk he will stagger, complains of pains in the head, feels dizzy and weak. Some time elapses yet before he will recover perfectly and resume his work. These we call light cases. In severe cases he will not move, he remains in deep coma, nothing will rouse him, no external irritants will produce the slightest reaction. Pupils may be dilated or not, but light has no influence on them, extremities are cold, pulse slow and weak. Patient may either die soon during coma, or after a few hours perhaps even days, reaction takes place, pulse beats quicker, temperature rises and even symptoms of congestion of the brain may appear. Ultimately patient may recover or other symptoms appear which tend to show that other lesions of the brain had taken place. The deeper the coma and the longer it lasts, the less we are authorized to make the diagnosis of simple commotion. What is commotion? It was said that the vibrations of the skull were communicated to the substance of the brain, that oscillations took place and that in consequence of these a change was produced in the molecular arrangement of the brain. Such explanation is probably wrong; because it is not possible that after such a serious injury to the substance of the brain, as the derangement of molecules must be, the normal function of the brain could be re-established in so short a time as we see it in light cases.

Experiments, too, have proved that no such oscillation takes place within the brain. A glass balloon is filled with gelatine of the consistency of the brain, and then threads of dark colored silk are disseminated through it. Now if on striking the glass, waves would pass through the substance, a slight quivering of the threads could be seen. But not even with a good microscope

can such movement be observed ; and as the only result of the stroke, we see that the whole substance moves, when enough room is left in the balloon for the gelatine to move. Others opened the head by a trephine, inserted a needle into the brain, and attached a thin piece of paper to the head of the needle. On striking with a hammer, the brain protruded through the opening, but the paper on the needle did not move. Others filled the skull with sand ; and all came to the conclusion that no oscillations take place, and that only the whole brain moves, that it moves in the direction of the stroke, that it accommodates itself to the changed diameter of the skull, and that the consequence of such accommodation is a contusion, either at the place where the force hits, or at the opposite side. Autopsies made soon after death from commotion, generally show signs of contusion, destruction of brain substance, or capillary apoplexies ; and several eminent surgeons were by these post mortem examinations led to deny the existence of commotion, and believed that death was produced either by contusion, or that, when no signs of contusion could be found, some lesion in other organs had taken place, which had escaped the attention of the examiner. But there is not any doubt that most careful examinations have been made, where no anatomical lesion could be found, or where the signs of contusion were slight and in comparatively unimportant portions of the brain, that the question arose : What did the patient die of ? Certainly not of the slight contusion ; less so, as we know that by rifle balls sometimes considerable portions of the brain are destroyed without lethal effect. On looking at the symptoms, we see that intellect, action of the heart and respiration, motility and sensibility of the patient is altered, that all functions of the brain are disturbed. Such a general disturbance of the functions can only be produced by a disturbance of the circulation of the blood and what follows it, and incompetent nutrition. When after being struck with a hammer the head of an animal is opened, the brain looks pale and does not move, and only when the animal rallies the vessels fill up again. The same phenomenon can be seen in the eye, when the pupils are well dilated by atropine ; the vessels of retina are plainly visible, as soon as you strike the animal on the head, they become either invisible or can only

faintly be distinguished, till the animal has rallied. We see, therefore, that when the head is struck an anæmia of the brain takes place followed very likely by a venous stasis and certainly by an improper nutrition of the brain. This explains in the most simple manner the functional derangements, which characterize the symptoms of commotion, and gives us the reason why slight cases recover so soon, but why still some time has to pass before they rally. We are still at a loss to know the exact cause of this trouble in the circulation; very likely it is produced by a reflex paralysis of the vaso-motor nerves. The tonus of the walls gets lost, arteries do not contract, insufficient supply of oxygen stops function of brain, vagus makes heart action slow and weak, blood goes into the veins but slow, and as they lose their tonus a stasis is produced. According to the above explanations, we are, therefore, led to the belief that commotio cerebri belongs to the symptoms of shock, and that the paralysis either exists in the blood-vessels of the brain alone, or a general paralysis of the vessels ensues.

In our case during the first two days the most prominent symptoms were those of commotion, loss of intellect and sensibility, inability to move, weak and slow action of the heart. After this the circulation through the brain was partially re-established, which was shown by the increased temperature and quicker movement of the heart. I say partially established, because there was still absence of intellect and vision and the legs remained paralyzed, showing that still an impediment existed for the proper nutrition of the brain, and this was caused by a clot of extravasated blood, or, to use the technic term, by compression. I am afraid I have imposed upon your time and patience already too long, and abstain from going into a detailed discussion of compression. I content myself to say, that it represents an impediment to circulation and nutrition, and that when compression is sudden and the substance, producing pressure, large, then the clinical symptoms are almost identical with those of commotion, and when compression is so great as to stop nutrition, death will always occur. If compression comes on gradually, then the brain will accommodate itself to the defect, nutrition and only symptoms of local pressure will appear. In our case

the extravasation of blood took place very likely immediately after the fall, but pressure did not get to a high pitch because the fracture served as a safety-valve through which blood and afterwards liquor cerebro-spinalis could escape, and when commotion seemed to have passed, only symptoms of local pressure, loss of intellect and vision and paralysis of the legs remained. With the resorption of the clot, the brain resumed gradually its normal function. I said the fracture acted as a safety-valve, but it is the road, too, through which the bacteria enter the interior of the skull and produce inflammation and suppuration of the meningea.

Our therapeutical action must be directed to the following points:

1. We must counteract the shock and avoid everything, that depresses the heart's action. We put, therefore, patient to bed, cover him well with blankets, put warming pans to his feet and hot cloths to abdomen. If patient can swallow, we give him stimulants, with caution.

2. We must try to give tonus to the paralyzed vessels, and avoid, when reaction takes place, congestion. Ice bags to the head are the best remedy. As adjuvants, two remedies may be given, which are known to contract the vessels, bromide of potash and ergot.

3. We must promote resorption. For this purpose we stimulate the organs of secretion and excretion, salivary glands, skin, kidneys and intestines.

The following is the course of treatment I pursued: During the first day I kept the body warm, applied ice bags to the head, and gave occasionally whisky with water. Towards evening when pulse became a little quicker, I stopped the whisky and gave bromide of potash and calomel with jalap, alternately every two hours till I had produced ptialism and profuse evacuations. Then I quit giving calomel, continued with jalap alone, but not so often as before and combined the bromide with acetate of potash, giving it every four hours. On the fourth evening, when there was more activity of the brain, I gave 10 grains of Dover's powder to allay the restlessness. The next morning I had patient sponged off with tepid water, and from thence up to the time of his recovery he received two spongings daily. The temperature of

the water was diminished gradually till it was ice cold; after being sponged patient was well rubbed. Ice bags, bromide and acetate of potash were used till the function of the brain was normal. Dover's powder and jalap were given when necessary. Diet was regulated according to his necessities. To avoid, if possible, septic poisoning, the ear was washed out every day with weak solution of carbolic acid (1.100) and clothes wet with the solution kept on it, and changed as often as soaked with serum. The legs improved under the use of the cold water spongings and liniments, which I had applied three times daily. Very likely it was the massage that helped them most. When patient was able to be about, I forbade him strictly to read, and enjoined him to keep away from everything that could excite him. For two months more he took the elixir of pyrophosph. of iron and bark as a tonic.

DIFFERENTIATION OF CANCER OF STOMACH FROM DYSPEPSIA
BY THE ABDOMINAL TEMPERATURE. (*La France Médicale*,
July 9, 1879).

At the Société Clinique, Paris, communicated some interesting facts relative to local morbid temperatures in certain affections of the abdomen. A patient presented marked symptoms of dyspepsia, with progressive wasting away. The general appearance favored the supposition of cancer of the stomach, but there was no vomiting, no tumor in the epigastric region. The epigastric temperature was carefully taken, and the average (we suppose) was 37.3° , while the temperature in the axilla did not exceed 36.8° .

The patient died and an autopsy revealed cancer of the posterior wall of the stomach, extending to the large curve. The orifices were not invaded.

The normal temperature of the epigastric region is given as 35.5° , and the statement made that in simple dyspepsia elevation of temperature does not occur.

Clinical Reports.

ARTICLE VI.

COOK COUNTY HOSPITAL.

(Reported by J. H. SALISBURY.)

A Case of Rupture of the Diaphragm and Stomach.

A male patient was admitted to Cook County Hospital on the evening of July 22d.

The following was his history previous to admission: While intoxicated, he had been seen to stagger against a lamp-post, and afterward fall off the sidewalk into the gutter, where his left side struck upon the covering of a man-hole.

On admission patient was in great distress, and complained of severe pain in the left side. He vomited several times soon after admission. The matters vomited were dark, looking like coffee-grounds, and evidently contained blood.

On examination, a soft swelling was found in the left hypochondriac region. About the center of this swelling was found an abrasion of the skin about 2 Cm. in length by 1 Cm. in breadth. Around this was a circular red line, enclosing a space about 4 Cm. in diameter. Between the abrasion and this red line the skin appeared natural, although the tissues beneath were swollen. Crepitus was felt, and the finger passed in further than natural, as if the ribs had been crushed in at this point. The patient did not appear to be greatly prostrated, but was very restless, and called constantly for water.

The treatment consisted of morphia to relieve pain, and stimulants. Warm fomentations were applied to the side.

July 23d. — His pulse was 120; his temperature 38°. The vomiting of blood had ceased. He was very restless, although

he had slept some. There was no tenderness of the abdomen or chest, except in the immediate vicinity of the injury.

July 24th. — He was still quite restless. Pulse, 120; temperature, 37.9°. He had great dyspnœa and cyanosis. He coughed a short, hacking cough, and expectorated a little frothy mucus. Large mucus râles were heard over the whole right lung: metallic tinkling, in the mammary region of the left side. The breathing over the upper part of left lung was good — over the lower part it was indistinct. The percussion resonance was good. There was no tympanitic resonance.

10 a.m. — He was very restless. His sputum was tinged with blood.

4 p.m. — Some tympanitic resonance could be found in left hypochondriac region. Patient seemed a little more comfortable.

7 p.m. — Pulse 100, very feeble; temperature, 37.9°. He died during the night.

The autopsy was made twelve hours after death. The eighth, ninth and tenth ribs were found to be broken. A rupture of the diaphragm was found about 10 Cm. in length, situated behind and to the left of the central tendon. Through this rupture the stomach had been forced into the pleural cavity, so that nearly all of the organ lay in the pleural cavity. A rupture of the stomach was found at the point situated uppermost as the organ lay in the pleural sac. The rent in the stomach would easily admit the passage of two fingers. The contents of the stomach and some blood were effused into the pleural cavity. There was no effusion of the contents of the stomach into the peritoneal cavity. There was no inflammation of the peritoneum nor of the pleura.

NOTES FROM PRIVATE PRACTICE.

ARTICLE VII.

A Case.

On the morning of April 7, 1878, I was called to meet in consultation my friend, Dr. I. H. Gillum, in a case in whose subsequent clinical history we became very much interested, not

so much because of anything specially *new* in the symptoms, as from the difficulty in arriving at a clear and satisfactory diagnosis.

The patient was a married lady, the wife of a farmer, about sixty-five years of age, of a phlegmatic temperament, spare habit, and was free from any hereditary vice.

The doctor informed me that she had been complaining about a month with pain in the left ear; that while he was not entirely satisfied as to the nature of the trouble, he had been disposed to regard it as an obstinate form of neuralgia, and had treated it accordingly; latterly, however, he had feared abscess somewhere among the cranial bones.

A careful examination of the case revealed no apparent lesion anywhere. The tongue was but slightly furred, the appetite was fair, there was no febrile excitement, nor had there been at any time previous. There was no acceleration of the pulse, no disturbance of the circulation, nor was there in the region of pain, a particle of swelling or soreness. An examination through the speculum of the external meatus gave no sign of disease, the walls of that canal, together with the *membrana tympani*, presenting, apparently, a normal appearance. The mouth and pharynx were also examined with like results. The pain in the ear was deeply seated, of a dull, grinding character, was persistent, and generally more severe at night than through the day. It might also be proper to state that the patient complained of a slight irritation and weakness of the left eye, and numbness of the muscles of the corresponding side of the face.

Considering the fact that there seemed to be a total absence of all inflammatory excitement, and that the ordinary symptoms of abscess were not well marked, I was inclined to concur with the doctor in his diagnosis of the case; that is, that the affection probably belonged to the neuroses, and therefore was purely functional. While, up to this time, the case had received such treatment, both constitutional and local, as seemed indicated, it was decided that essentially the same line of therapeutic measures should be continued, for awhile at least.

During the following three or four weeks the anti-neuralgic treatment was kept up vigorously and persistently. Quinine was given to cinchonism; strychnia, iron, arsenious acid, aconite,

belladonna and opium were all employed, either in combination or separately; vesication with iodine and blistering cerate behind and in front of the ear, was had recourse to without stint; but all without the least beneficial effect to the patient, save to afford, now and then, a little temporary relief from pain. It was now two months since the inception of her illness, and there had quite recently developed some new features in the case.

These were of such a character as to force the abandonment of the functional theory. A fullness was observed just in front of, and below, the left ear; indeed the swelling seemed to follow up and embrace the entire parotid gland. There was also a partial closure of the auditory meatus. A copious and profuse salivation with a feeling of fullness of the left side of the face, and a burning, smarting pain of the mouth of the corresponding side, were prominent symptoms. The mucous membrane of the mouth and pharynx of the affected side was irritable and highly congested, without, however, any abrasion of its surface. At the upper part of the pharynx, at its junction with the soft palate, a little to the left of the median line, was noticed a rounded or globular enlargement, which was firm and unyielding to the touch, and almost entirely devoid of sensibility.

The patient was evidently wearing; the appetite had become seriously impaired, and the loss of flesh and strength was marked and decided. During the next two months, while there was observed no new feature in the case, there was certainly an aggravation of all the symptoms enumerated, with a steady and rapid decline in the general health.

The parotid gland continued to enlarge, was comparatively painless, and as hard almost as bone. The growth at the upper margin of the pharynx increased in size, so much so, indeed, that we could not well divest ourselves of the belief that within this tumor, or in its immediate vicinity, there must be a collection of pus. With the view of confirming or otherwise setting at rest this question, we repeatedly, from time to time, carefully examined it with an exploring needle; also passed to its entire depth a fine-pointed, narrow-bladed bistoury, but always with negative results.

The saliva still continued to pour from the mouth in incredible

quantity, was pungent and acrid, burning and smarting the mucous surfaces, and gave off a very offensive, nauseous odor. The left eye was inflamed and painful, with vision almost totally obscured; the auditory meatus, from which exuded a thin, serum-like fluid, was gradually closing, and the functions of the ear were very nearly destroyed. On carefully examining the meatus with a probe, it was passed without difficulty, not only to the bottom of this canal, but through the membrana tympani into the middle ear, thence through this cavity and beyond, apparently, along the entire track of the eustachian tube.

The *numbness* of the left cheek, already alluded to, had developed into almost complete anæsthesia, and this loss of sensibility was not confined to the facial muscles, but embraced, so far as observed, all of the muscles supplied by the fifth nerve, as these could be pinched or pricked without giving rise to the least sensation. At this time, the sixteenth week of her illness, the patient became suddenly unconscious. The loss of consciousness was soon followed by slow and stertorous breathing and coma, more or less profound. In short, the attack was purely apoplectic in its nature, accompanied by a train of symptomatic phenomena such as always follow compression of the cerebral substance.

This condition lasted five or six hours, when there was a gradual return to consciousness; but it was found that the whole of the *left* side had become hemiplegic; there was total blindness of the left eye, the sense of hearing in the left ear was completely abolished, and the facial muscles of the affected side were so drawn to the opposite side as to give to the physiognomy a most unnatural and hideous expression.

The paralysis, so far as motility was concerned, seemed complete, and continued until the close of life. The condition of the patient was now indeed pitiable; the paralysis of the muscles concerned in deglutition rendered alimentation by the mouth imperfect and difficult. The integument was corrugated and shriveled, and, in color, not unlike that of the cadaver; the emaciation, which had been marked for two months, had, it appeared, reached the utmost limit, and to add still more to the distressing features of the case, bed sores were rapidly forming

over the iliac projections, the great trochanters, and indeed on almost every part of the body subjected to pressure.

The patient continued to fail rapidly, and died from exhaustion four weeks from the time of the apopleptic seizure, and about five months from the first symptoms of illness. Death was peaceful and quiet, wholly free from convulsions of any character.

From the above history of this case, though briefly and imperfectly given, enough has, I trust, been said, to make it evident that whatever may have been the nature of the lesion, and wherever may have been its primary seat, sooner or later it became intra-cranial, involving the cerebral structure in such a way, and to such an extent as to greatly hasten the fatal issue, and render death inevitable.

What was the matter, and where was the starting point of the disease? Was it primarily an abscess of the mastoid cells, or was it scirrhus, affecting some one or more of the cranial bones? If neither of these, then what was it?

Again, observe that the paralysis occurred on the *left* or diseased side. How are we to reconcile this fact with the accepted theory that hemiplegia, when it takes place, is always the result of cerebral lesion affecting the *opposite* side to the one paralyzed?

ANNAPOLIS, IND.

J. A. GOLDSBERRY, M.D.

ARTICLE VIII.

Case of Complete Procidentia Uteri Successfully Treated by Operation.

The following case may serve to illustrate the power of the the gynæcologist in restoring to a new life, as it were (by a comparatively simple operation), one who had suffered for more than three years, and whose happiness had nearly vanished because of the apparent hopelessness of her condition.

Mrs. C., æt. 42, came under my notice Aug. 30th, 1878. She is rather an intelligent lady; married twenty-three years (one husband), and had given birth to two children.

In answer to a summons, I found her in great pain, and upon examination as to the cause, discovered a tumor as large as my fist external to the labia. It was soft and fluctuating. Upon

attempting to reduce it, my fingers encountered a hard body within the pouch, which proved to be the uterus. Upon attempting to pass the catheter, with the meatus urinarius external to the vulva, the instrument met with resistance, the canal being doubled upon itself; a small quantity of urine was drawn, thus proving the existence of vagino-cystocele. A finger introduced into the rectum passed down into the prolapsed pouch, thus proving vagino-rectocele. When the parts were in a state of prolapse — for I found the case one of long standing — of course the bladder and rectum were unable to discharge their contents, hence, retention of urine and constipation of the bowels were almost constant complaints. Whenever the patient desired to empty the rectum or bladder, the tumor had to be reduced. After the birth of her second child — for a period of three and a half months — her knees were involuntarily apart, during which time there was evidently a prolapsed state of the uterus, rectum and bladder. In the normal state, the uterus, together with some convolutions of the small intestines, are mainly kept *in situ* by support from the vagina. When the bladder is distended, it is kept from retroverting by resistance from the vaginal walls, while the same cause operates to prevent the anterior wall of the rectum from falling forward. When, however, the vaginal walls are impaired by disease or otherwise — as from enlargement of the uterus, vaginitis, etc. — the resistance is no longer sufficient to render proper support to the adjacent parts, in consequence of which the vagina falls upon itself, and we have what is known as “prolapsus vagina.” It is a mooted question whether prolapsus of the uterus occasions prolapsus of the vagina. Dr. Barnes, in his “Diseases of Women,” late edition, is of opinion that “prolapsus of the vagina may exist independently,” and further states, that “there is a preparation in St. George’s Museum, which seems to show that vaginal rectocele may exist without prolapse of the uterus.” Dr. Savage (“Female Pelvic Organs”) says: “Prolapse of the vagina alone, or prolapse of the vaginal mucous membrane alone, are two affections which, anatomically considered, would seem impossible.” Dr. Thomas, in his “Diseases of Women,” states that: “Noel mentions a case of this kind where the prolapse reached down to the knees.” Dr. Thomas

further remarks: "It is an important question whether there can be prolapse of the vagina without vagino-rectocele, vaginocystocele, vaginal hernia of intestine forcing down the vaginal *cul-de-sac* or uterine prolapse." In the case of Mrs. C., I think all of the conditions mentioned by Dr. Thomas existed. Through a correspondence with a physician of Iowa, who formerly had charge of her case, I learned that her prolapsed state was greatly aggravated, if not entirely induced, by the insatiable lust of her husband, whose bestial approaches, when heightened by liquor, were as frequent as four or five times in a single night. This gentleman operated upon her twice, each operation proving a failure owing to the venereal appetite of her husband, who, Satyr-like, in the language of the doctor, "tore things all loose." From the very pointed language that the doctor employs in describing Mrs. C.'s case, one would naturally suppose that the sole trouble originated in the unnatural size of her husband's penis, and his amorous propensity for using it. Frequently it was necessary to inject morphine subcutaneously for relief of pain occasioned by excessive coitus.

The uterus seemed to be about twice its normal size, and within it there appeared to be an apparently hard, resisting body, while every five or six weeks there was a free discharge of muco-purulent matter, from which conditions I inferred there might possibly exist a fibroid. The error of this belief was made apparent at the time of an operation subsequently performed by Dr. Jackson, when upon careful examination under ether, no such growth was found.

The woman having separated from her husband, applied for admission, and was received into the Woman's Hospital, State of Illinois, Dr. A. Reeves Jackson in charge. In January, 1879, Dr. Jackson operated for narrowing the vagina, at which I was present. The patient was anæsthetized, placed in the lithotomy position, and the operation conducted under the Lister spray. The operator commenced by picking up a fold of the posterior and upper vaginal wall above the os uteri, and with a pair of scissors cutting out a circular portion 3.7 Cm. in diameter, introducing a running suture around the margin of the cut surface — a sort of puckering string — drawing the suture together

at the ends and tying. The operation was skilfully and expeditiously performed.

The patient made good recovery, but the cure being incomplete, Dr. Jackson performed a second operation a few weeks later — the last operation being similar to the first, save that the lower and posterior portion of the vagina was acted upon.

The woman called upon me not long since; I examined her and found that the operation had completely cured her.

NELSON H. CHURCH, M.D.,

CHICAGO, ILL.

300 S. Halsted Street.

ARTICLE IX.

A Remarkable Case of Opium Poisoning.

The following case offers several points of interest:

Mrs. M. E. K., æt. 27 years, married five and a half years; of small size, but well nourished.

Antecedents. — She has had two children at full term; miscarried twice. Her first pregnancy was a good one; she enjoyed good health throughout, and gave birth to a healthy girl, which died last year of yellow fever at an age of 3 years and 2 months. The second pregnancy was not so easy; she had convulsions (puerperal) towards the end of the sixth month, from which she recovered, and gave birth to a girl at full term. During her entire second pregnancy she was in ill-health, had little appetite and was very anæmic. The two miscarriages took place, one before she became pregnant with her second child (which is now living, and a fine, healthy girl), and the other thereafter.

At present she is in the ninth month of another pregnancy. Since the fourth month of her present pregnancy she has suffered with false pains, which recurred regularly towards the beginning of each subsequent month, but which, under good care and judicious sedative treatment, left her after an illness of about two days each time. She had at times slight suppression of urine, with traces of albumen.

These attacks seemed to increase in violence each time, and on the first of June, 5 p. m., she had a puerperal convulsion. I

put her at once under chloroform, and administered a solution of hydrate of chloral, 2.0, Batley's sedative gtt. xv, in water, 15.0, per rectum, which dose was repeated two hours later. At the same time I applied powerful rubefacients along the spine, and especially over the region of the kidneys. She commenced to pass urine freely and copiously, and no convulsion has as yet returned.

Her last attack occurred on July 3d at 9 p. m. I applied rubefacients to the spine as before, and gave, by rectum, a dose of chloral and Batley's sedative as mentioned above, which was repeated at 12 o'clock the same night and at 7 and 8:30 the next morning.

She slept a little during the night, and in the morning from 8:30 till 12:45 p. m. (four hours and fifteen minutes). The last sleep was very refreshing. She drank a little iced wine, but ate nothing.

In the evening, at 6 o'clock, she partook an ordinary wine-glassful of ice-cream. Half an hour later she was taken with retching, and ejected about two teaspoonfuls of what appeared to be curdled milk. The pains, which had left her completely that morning, commenced again, steadily increasing in violence.

At 7 p. m. I administered morph. sulph. 0.01, subcutaneously in the *left* arm, which, not having given the slightest relief after twenty minutes, was followed by hydrate chloral 1.25, Batley's sedative 0.6, and water 10.0, per rectum. No effect was noticed until twenty minutes after the last dose (*i.e.*, forty minutes after the administration of the morphine in the left arm), when all at once the lady's face became hot and flushed, the breathing very slow (but not stertorous), the pulse quick and small and *both* pupils contracted to the size of a pin's head. Respiration, 10; pulse, 120. Rate of pulse to respiration: 12:1.

I became at once aware of the fact that I had a case of opium (and chloral) poisoning on hand.

I rubbed the patient's face, neck and spine with ice, and prescribed an ointment composed of extr. belladonnæ 3.75, cerati camphoræ 15.0. I did not want to use atropinum hypodermically, fearing that I might run into the opposite extreme; but wished to secure a very slow and gradual absorption of the belladonna.

Of this ointment I applied about 4.0 to the back, on *both sides* of the spine, every twenty minutes, closely watching its effect on the pupils.

To my great astonishment and surprise, ten minutes after the second application, the *right* pupil dilated rapidly, and was expanded to its utmost in a remarkably short time (eight minutes later), while the *left pupil remained contracted as it was before the application of the belladonna, viz., to the size of a pin's head.* I desisted from the further application of the belladonna; the ice was continued.

Three hours and twenty minutes after the commencement of the opium narcosis (11 p. m.) the lady was so far resuscitated as to be able to answer questions rationally, she complained of headache, drowsiness and dimness of sight. The pupils remained as described, viz., the right dilated to its utmost degree, the left contracted to the size of a pin's head, until half-past three in the morning, so that by 4:30 they were of normal size, and responded to the light again.

The foetal movements were not felt until about 11 o'clock a. m., July 5th, and at night they became as strong as ever they were before.

The noteworthy points in this case are:

1. A comparatively small dose had produced poisoning. The interval between the last dose in the morning and the first dose at night was 11 hours.

2. Why did the right pupil show the effect of the belladonna, while the left one remained contracted, and this without the slightest alteration for about $6\frac{1}{2}$ hours? The morphine solution (10 minims of a solution containing morph. sulph. 0.06 in 60 minims of water) was injected into the left arm, the belladonna ointment was applied equally over and to both sides of the spine. What was the cause of the persistent difference between the two pupils, since the drugs act constitutionally?

3. Not the slightest harm has so far resulted to the foetus.

GUSTAV KEITZ, M.D.,

NEW ORLEANS, LA.,
July 9th, 1879.

666 North Rampart Street.

ARTICLE X.

Hernia Reduced by Elastic Bandage.

For the June No., 1878, of the JOURNAL AND EXAMINER, I remember abstracting from *L'Année Médicale* a summary of two cases of intractible hernia reduced by means of Esmarch's bandage. As will be seen by reference to the above abstract, taxis and position and chloroform had all been faithfully tried by competent men to no purpose; whilst the hernia was reduced readily by the constant pressure of the elastic bandage.

Since the above was published, I have spoken with several physicians on the subject, but none of them had ever used the bandage or seen it used for this purpose; and Dr. F. H. Hamilton, in his extensive article on the question of hernia in the *Hospital Gazette*, June 7, 1879, does not mention the use of the rubber bandage, notwithstanding the fact that its successful application forms the most convincing argument towards the establishment of the theory which he has labored to establish.

Whilst visiting Geneva Lake, Wisconsin, last week, I became acquainted with Dr. Geo E. Catlin, who had just then under his care a case of right femoral hernia, which had existed for three days. Dr. C. had diligently used taxis and position and the administration of morphia, but without result, when he invited me to see the case with him.

The patient, a woman of forty-four years, had been previously troubled with the hernia, but the reduction had been effected with ease. On one occasion, when it seemed more obstinate than usual the reduction was effected by a dose of morphia and the elevation of the hips. She was at the time troubled with other afflictions, which appeared to have no connection with the hernia. The tumor in question was hard and about the size of a hen's egg. Considerable nausea was present, but no vomiting.

Anxious to try taxis still more effectively, we lowered the patient's head, elevated her hips with pillows and cushions, and one of us patiently drew the bowels towards the epigastric region, while the other manipulated the hernia. These efforts were as

unsuccessful as the previous ones. Chloroform was then administered, and the efforts renewed without effect. I then asked Dr. C. to allow me to apply the rubber bandage, which I suggested he should bring with him. The bandage was applied and we left the patient with the hips elevated to return in the course of two hours. Finding himself detained by a case of labor, Dr. C. requested me to drive up and see the patient. The hernia was not reduced, but I also observed that the bandage was not applied as snugly as desirable—it was really too wide. I took it off and re-applied it, and had the satisfaction, in a quarter of an hour, of hearing an exclamation, Oh! from the patient, which was but the expression of pain which the hernia produced in returning to its place.

The bandage used was three inches wide, probably one two inches would have been more convenient. It was first laid over the crest of the ilium on the affected side, brought over the hypogastric region and round the back and overlapping the end brought down the groin straight over the tumor; it was then brought round the back of the thigh, and once more passed round the body to be brought again over the hernia and firmly secured.

It is certainly not necessary to advocate at any length the application of force so gentle, equable and constant, in preference to the rude, uneven and inconstant pressure which the most practiced hand can apply. The probability is that instead of being a last resort, after several failures, it will become the first measure adopted, and find a place in our regular text-books.

CHICAGO.

R. TILLEY, M.D.

ARTICLE XI.

Poisoning by Strychnine — Prompt Recovery after Administration of Potassi. Bromid.

On the evening of July 7th, 1879, I was hastily summoned to a livery office, where the young man in charge, aged about twenty, was affected with very severe convulsions. I could elicit nothing further than the answer "No" to all questions, and the

surroundings gave no clue to the mystery. I lost no time in giving an heroic emetic, with orders to those in attendance to hurriedly get some milk and warm water, while I returned to my office — a distance of one block — for medicine. While gone, his employer succeeded in ascertaining that strychnine had been taken. I at once gave milk and 4 grams of the bromide of potassium, waiting sufficiently long for the effects of the emetic, with no results. Of the bromide, gave from 15 to 30 grams within one hour, during the last half of which the rigidity became less and less marked, and was soon followed by vomiting and nearly complete relaxation.

With occasional muscular twitchings, the patient fell asleep, and awoke to recovery without an unfavorable symptom, resuming his work again on the 9th.

Since his recovery he has stated that the day before his illness he purchased five cents worth of strychnine, the whole of which was taken, making a piece, as he says, about the size of a pea. This was taken about six o'clock in the evening of the 7th, and was soon followed by muscular twitching, which continued. When found, he was in a continuous and persistent spasm from head to foot, with an alarming opisthotonos, and extremities cold to body. For awhile it was difficult to administer medicine, but, keeping the jaws apart by the introduction of a fan-handle, small amounts were constantly introduced. The point of special interest to me is the promptness with which the patient was relieved by the rather heroic use of bromide of potassium.

W. H. SMITH, M.D.

SHELL ROCK, IOWA, July 11th, 1879.

A LIVELY CITY. — The editor of the *Louisville Medical News* says they have in that city, now, five medical journals, and four medical colleges, and intimates that there are yet from ten to twenty members of the profession who are still without professorships. It is evident that there is both room and material for one more medical school in Louisville.

Society Reports.

ARTICLE XII.

CHICAGO MEDICAL SOCIETY. (Reported by R. Park, M.D.)
Regular meeting July 7th. Dr. E. L. Holmes, chairman *pro tem*.

Dr. A. R. Jackson read a paper on "Lacerations of the Cervix Uteri," which will be found in the last number of the JOURNAL.

In the discussion which followed, DR. DUDLEY said he wished to correct any impression that Dr. Gardner was entitled to claim priority of discovery of all that Dr. Emmet had called attention to. The former had recognized the fact that laceration existed in many of these cases, but had not noticed, or at least had not laid any stress on the fact, that by a proper approximation of the edges of the rent the parts were reduced to their proper position, and much of the enlargement disappeared.

DR. FITCH wanted to be understood as recognizing the frequent occurrence of the lesion, and its importance as a factor in much of the suffering which women have to bear; but he thought, after all, that it was not the extent of the laceration, be it slight or great, that should determine the advisability of Emmet's operation, but the effect of the lesion upon the patient, judging from the consequent pain, lassitude, sterility, etc., of which she might complain. He had seen cases where extensive laceration had taken place, while the patient suffered very little, and he doubted if the surgeon should, in such a case, operate. That trachelorrhaphy does not prevent laceration again in subsequent labor, he learned by experience in two cases. With the essayist, he insisted on the necessity for careful preparatory treatment;

but he feared that weekly puncture for purposes of depletion would lead to a cicatricial contraction, which would complicate the results of an operation. He did not believe there was any need to resort to anæsthesia during the operation, nor to the use of the catheter during the few days after it; but looked forward to the time when we should operate in our offices and then send our patients about their various duties.

DR. TILLEY enquired whether there was no prophylaxis during and subsequent to labor which should be insisted upon.

DR. INGALS was surprised that in examinations the unaided finger and the bivalve or round speculum should reveal so little, while the Sim's speculum or a perineal retractor revealed so much.

DR. BARTLETT related a case of Dr. Mary Thompson's. A woman suffering from cervical laceration became the subject of epileptic seizures, and finally had in one day six or eight of these attacks. The doctor operated in the usual way, and the patient had now had but one fit in three months. Dr. Bartlett also referred to a paper which he had read before the Society of Physicians and Surgeons, "On the Anatomy of the Cervix Uteri, Before, During and After Labor," and called attention to the facts therein pointed out as having a new interest in connection with the subject under discussion. Stolby, Cazeaux, and the majority of more recent writers, state that up to a few weeks before confinement the cervix remains entirely undeveloped, and that the last joint of a finger inserted along the cavity of the neck may reach the os internum; that during the progress of labor the ring of the cervix is obliterated, so that the uterus and vagina form a continuous canal; and that after labor the strongly "pursed" orifice through which the fingers pass in entering the cavity of the womb is the os externum.

In the paper referred to, Dr. Bartlett had stated that before labor the cervix had greatly expanded, so that even that portion of it below the vaginal attachment measured several inches in width, that the contracted portion really felt by Cazeaux *below* the vaginal attachment, and yet located in his imagination—by a singular perversion of conception—*above* it, was not, as he supposed, the os internum, but that segment of the cervix which,

at the time of examination, was the line of demarcation between the expanded and the yet unexpanded portion of the neck. That the infra-vaginal portion of the cervix is not "obliterated" at the time of the passage of the child, but remains as a narrow band jutting into the parturient canal. And finally, he had stated that after labor the firmly contracted orifice generally alluded to as the os, is the os internum, while the infra-vaginal portion of the cervix floats in the vagina as a flabby ring.

It was, therefore, the fact of the existence of this ring which he wished to introduce in this connection. For while no one is able to conceive of those conditions which are now recognized as cervical lacerations as being the outcome of the slight, superficial, purse-mouth flutings which may be sometimes felt in the margin of the os after labor, yet, given an actual, substantial, fleshy ring, through which is to be propelled a foetus, it is easy to conceive of the cause, the time, the anatomy, the means of diagnosis, and even the plan of treatment of those injuries of the uterine neck which are just now of such paramount interest to the gynaecologist.

DR. WICKERSHAM thought that the general practitioner should learn, from the paper and its discussion, that in all cases of parturition he should avoid meddling midwifery.

In closing the discussion, DR. JACKSON said he thought Dr. Fitch's suggestions with regard to the feasibility of operating were admirable. He also allowed that "meddlesome midwifery" might be and was the frequent cause of much future trouble, as well in the direction of the subject of his paper as in other ways. He would insist on the general rule that every accoucheur should examine his patients four to six weeks after confinement, in order to detect laceration of the cervix uteri as of the perineum.

After this discussion had ceased, DR. C. FINGER gave an elaborate demonstration of the pathology of embolism, illustrating his remarks by crayon sketches, morbid specimens and sections under the microscope. He divided emboli into innocent and noxious, and classified their ultimate effects thus: I, None; the resulting ischæmia being compensated for by collateral circulation. II, Gangrene; which usually took place only in the extremities. III, Hæmorrhage; for the most part occurring in

parenchymatous organs. IV, Abscess; *e. g.*, pyæmic abscesses. Innocent emboli might cause II and III, but never IV; noxious emboli, III and IV. He described the process of fatty degeneration of embolic infarctions and the formation of abscess from the same.

Specimens were exhibited from two cases: one of embolism and abscess of the liver; the other of septic endocarditis with infarctions in the brain, spleen, liver and kidneys.

CORRECTION.

In our report of the meeting of the Chicago Medical Society, in the last number of the JOURNAL AND EXAMINER, we inadvertently did Dr. E. L. Holmes an injustice, for which we hasten to make reparation. In the discussion on chloroform asphyxia, he is represented as stating that he had been so unfortunate as to have seen seven or eight deaths on the table from its use. It should have read *apparent* deaths — *i. e.*, most alarming symptoms: syncope, etc.; but the Doctor has never had a *fatal* case of chloroform poisoning. He mentioned also that evening that he had had *one* fatal result from the administration of ether, in 1876; which was duly reported in the files of the *Chicago Medical Journal*.

He also alluded further to the method of resuscitation by depressing the head or elevating the feet—a method which was original with him, and which he was the first in this country to apply, although the distinguished Nelaton also resorted to it, and is probably entitled to the honor of priority in its employment.

We trust that this correction may meet the eye of every one who may have received a wrong impression from the report alluded to.

ARTICLE XIII.

MICHIGAN STATE BOARD OF HEALTH.

The quarterly meeting of the State Board of Health was held in the office of the secretary in the new capitol at Lansing, Tuesday, July 8, 1879. The following members were present: R. C. Kedzie, M.D., of Lansing, President; Homer O. Hitchcock, M.D., of Kalamazoo; Hon. LeRoy Parker, of Flint; Rev. Daniel C. Jacokes, D.D., of Pontiac; Henry F. Lyster, M.D., of Detroit; John H. Kellogg, M.D., of Battle Creek; and Henry B. Baker, M.D., Secretary.

PRESIDENT'S ADDRESS.

President Kedzie gave a brief history of the legislation relative to illuminating oils in this State, beginning with the law of 1869. This law provided for county inspection, but was not generally enforced. The legislature of 1873, which passed the law for establishing the State board of health, also passed a law raising the flash test for oil to 150° F. The state board of health began its work with this law in force. In 1875 the legislature reduced the flash test to 140° F., and increased the inspection fees. There were scarcely any casualties under this law, but the illuminating qualities of the oil were not always good. Dr. Kedzie, as a committee of the State board of health, devised the chill test, which was recommended to and adopted by the legislature of 1877, and secured a good and safe illuminating oil. The legislature of 1879 abolished the chill test and reduced the flash test to 120° F. Each time the law has been changed the cost of inspection has been increased, and the last law will entail an annual expense of about \$12,000 for inspection above the expenses incurred under the law of 1877.

INTERESTED FOREIGNERS.

The president presented a letter from Theodore H. Monk of the meteorological office at Toronto, asking for a set of reports of this board, as they desire to inaugurate a system of health and weather observations similar to that of the Michigan board.

Secretary Baker presented a communication from the secretary of the epidemiological society of London, expressing great interest in the work of the Michigan board, especially that for the registration of disease.

A letter was presented from Mr. Avery of Baltimore, relative to

LEAD POISONING

as set forth by Dr. Kedzie's articles on that subject, and claiming that he had demonstrated that electroplating the tin cans used in preserving fruit, and tin utensils of all kinds, with a thin coating of silver would prevent any poisoning thereby.

CATTLE DISEASES.

A communication was presented from A. J. Murray, veterinary surgeon at Detroit, relative to "cattle diseases in Michigan," and their relation to public health; also, a part of a letter from a member of the national board of health on a similar subject. These communications were referred to the new standing committee on "diseases of domestic animals as relates to public health."

THE SECRETARY'S REPORT.

Secretary Baker presented his report of the work in the office during the last three months. It included the distribution of a large number of the regular reports and other documents, and of the registration report of births, marriages and deaths. These were sent to meteorological observers, regular correspondents, sanitary exchanges, and other persons interested in such subjects in Michigan. Names and addresses of health officers were received from 760 townships, 113 villages, 39 cities. Abstracts of the proceedings of the last meeting were prepared and sent to nine sanitary journals, who desired the same for publication. These journals are exchanges of the board. Meteorological observations were regularly taken in the office of the board, and a condensed statement is each week published in the *Lansing Republican*. Weekly reports from over 60 observers of diseases have been received, examined and filed. Work on the compilation of these reports and of the meteorological reports has been continuously going on. The correspondence of the office is con-

tinually increasing, 606 pages of the letter-book being used in copying letters. Quite a number of meteorological instruments have been purchased and sent to observers, and some new stations have been established. A demand for weekly reports of diseases has been made on health officers of cities, as fast as the names have been furnished by the city recorders. The secretary has spent considerable time in supervising vital statistics, particularly those for 1877, and in studying deaths from certain diseases in a series of years. Many persons have visited the office of the board during the past three months, and most of them express surprise at the magnitude of the work carried on by the board. Communications have been received and referred to the chairmen of appropriate committees, as follows: Dr. Kedzie, 14, Dr. Hitchcock 16, Leroy Parker 4, Dr. Jacokes 1, Dr. Lyster 8.

The board has in mind the examination of candidates in sanitary science, and the examination papers on this subject used in the university of London and other foreign colleges have been secured for study in this connection, and Dr. Lyster reported a plan for the examination of physicians in sanitary science.

The standing committees were reorganized, as follows:

Epidemic diseases, etc. — Dr. H. O. Hitchcock.

Sewerage and drainage — Dr. H. F. Lyster.

Food, drinks and water supply — Dr. R. C. Kedzie.

Ventilation, heating, etc. — Dr. D. C. Jacokes.

Climate, etc., in relation to health — Dr. H. F. Lyster.

Disposal of decomposing organic matter — Dr. J. H. Kellogg.

Poisons, chemicals, accidents, etc. — Dr. R. C. Kedzie.

Occupation, etc., in relation to health — Dr. J. H. Kellogg.

Relations of schools to health, etc. — Dr. D. C. Jacokes.

Sanitary survey — Dr. Jacokes, Dr. H. B. Baker, and Leroy Parker.

Death-rate — Dr. Baker.

Legislation — Leroy Parker.

Finances of the board — Leroy Parker.

Mental hygiene — Dr. Hitchcock.

Diseases of animals — Dr. Baker.

Dr. Hitchcock made a report on depot privies, which included

letters from the late Dr. Beech, of Coldwater, and J. E. Curtis, superintendent of the Michigan division of the L. S. & M. S. railroad, and made specific recommendations for remedying the nuisances which now prevail. Depot privies should never have a vault, but should be water closets connected with a sewer, or be supplied with dry earth or coal ashes; and it should be made the special duty of a station employe to see that the floors are scrubbed daily, the closets kept clean and in perfect operating order, and the whole closet thoroughly disinfected each day. In places where a sewer is not accessible, the closet in which the dry earth or coal ashes is used should be often cleaned, and the refuse buried. For water closets he recommended "Rhoads' porcelain seated hopper closet," supplied with Meyers' No. 1 waste preventing cistern. This closet is arranged to flush when the door is opened, and is just the thing for public places, as the hopper is non-absorbent, and the shape prevents persons using it from getting on it with their feet. For smaller stations, where a water closet could not be used, he described and recommended an exceedingly simple dry earth closet, but insisted upon the necessity of every day attention to it by an employe of the station.

The committee on sanitary conventions recommended that one be held in Detroit in December or January, and the next at Grand Rapids. Efforts will be made to get as large an exhibition of sanitary appliances together as possible. Manufacturers and dealers in sanitary appliances are requested to forward catalogues, advertisements, etc., and to correspond with the secretary relative to placing their wares on exhibition.

A SAMPLE OF RED FLANNEL,

from Dr. Nash, of Lapeer, reported to have caused sores, had been examined by Dr. Kedzie, and found to have been colored with analine which contained arsenic and tin.

REPORTS OF COMMITTEES.

Leroy Parker made a report as to the proper method of bringing suit in cases of nuisances; also, relative to collecting the statistics for the next U. S. census, and relative to authority of the board of health to kill horses afflicted with the glanders.

Dr. Kedzie made a report relative to the proceedings of the sanitary council of the Mississippi valley, held at Memphis, and in conjunction with the national board of health at Atlanta. He gave an extended account of the discussions, notably of that on quarantine. He spoke of a conversation with Dr. Billings of the national board of health, in which the following statements were made by Dr. Billings: The quarantine to be established by the national board of health must be uniform for the whole country. It is therefore necessary to be very guarded in the action of the national board, lest requirements which are essential for New Orleans and Mobile may destroy the commerce of New York and Boston. It is proposed to make such sanitary regulations as may and should be enforced in all places, and only such *national restrictions* by quarantine as will not disturb commerce seriously, and, for any stringent quarantine in points especially threatened, to secure action by State and local quarantine.

A resolution was adopted, favoring the organization of sanitary associations auxilliary to local boards of health.

The usual number of bills were audited, and ordinary business transacted. The next meeting of the board will be on October 14, 1879, at nine a. m.

EPITAPH ON DR. JOHN LOW, Founder of the Faculty of Physicians and Surgeons. Obit 1612.

"Who cured Many while He lived,
So gracious, He no Man Grieved.
Yea, when as Physick's Force oft fayled,
His Pleasant Purpose then prevayled.
For of His God He Gott the Grace
To Live in Mirth and Die in Peace.
Heaven Hes His Soul, His Corps this Stone,
Sygh Passinger, and soe Begone."

DR. GEORGE W. ELKINS, of Chester, Illinois, has recently been appointed surgeon to Illinois Southern Penitentiary.

Domestic Correspondence.

ARTICLE XIV.

NEW YORK CITY.

Editors CHICAGO MEDICAL JOURNAL AND EXAMINER :

In the city here just now there is a condition of repose, medically speaking, which makes letter-writing a not very easy matter. Our eminent men have gone to Europe to get rest and new ideas, or to watering places in this country, where they can gather in the occasional shekel at fashionable hotels. This latter practice a good many of our younger men also have embarked in, and many of them do more business in the summer than winter months. In every hotel, amongst the places about the city, there is seen a neat placard in the office announcing that Dr. Such-and-one, of New York, is resident physician. All this to the great pecuniary depletion of afflicted guests and to the grief of the local practitioners.

Those of us who remain in the city, meanwhile, divide our time between controlling diarrhœas and fighting the very elevated temperature with such antipyretic measures as steamboat excursions and cooling drinks.

We have had a little interesting reading furnished us by a polemic upon the caliber of the urethra between Drs. Sands and Otis. Dr. Sands began, I believe, by asserting in a clinical lecture that the theory advanced by Dr. Otis in regard to reflex spasms of the urethra was both untrue and unsafe.

Dr. Otis had asserted that many, if not most deep strictures were due to a slight stricture in the anterior portion of the canal which by reflex action caused spasm further back. He claimed that much harm and unnecessary cutting was done by operating

on the deeper portions, where the root of the trouble lay near the meatus, which part should be slit up and dilated freely. Dr. Sands, on the other hand, denied the truth of this and ridiculed the tremendous lacerations which this very innocent portion of the organ was too often subjected to, instancing cases also where he had seen the meatus cut so freely that the stream of urine could only dribble from it. Various other points were brought up also in the discussion, and each eminent gentleman in turn impeached the veracity, courtesy and surgical attainments of the other. It is difficult to say which came out ahead. Certainly nothing very definite or valuable was given to the medical public, and we were only furnished the not very rare spectacle of a couple of surgical brethren bumping their heads together and each calling attention to the very hollow sound that came from the cranial cavity of the other. Dr. Otis has made a valuable contribution to urethral surgery in his having shown the real caliber of the urethra and the frequency and importance of strictures at the meatus. When he gets an idea in his head, however, he makes a good deal of thunder over it, and the present one requires less discussion and more clinical observation before it can be considered proved.

Much of the medical energies of New York are directed in summer towards the hygienic condition of the city, and we are likely in time to become quite a model as regards sanitation and within the limits that our mode of living allows. Every year a corps of visiting physicians to the tenement houses is appointed and they are sent around to hunt up sick children and give them paregoric and chalk mixture, supplying them also with tickets to a free excursion on the river. When the work is faithfully done, and most of it is so performed, there is no doubt of the good results. There is an astonishing amount of lethargy and indifference amongst many of the poor when their children get sick. There are people who will let their children go until just on the point of death rather than take the trouble to call in a dispensary physician not two blocks away. When, however, a physician calls of his own accord and gives them medicine and an opportunity to take a sail in the bay with the babies, they will gratefully accept it.

A new move also has recently been started by those interested in tenement house reform. Forty inspectors have been appointed who are to visit all of the twenty-five thousand tenement houses in the city and take careful notes of every detail concerning them. When this work is finished the board of health will have a complete record of the sanitary condition of every tenement house in the city, sewerage, light, cubic feet of air, etc. It will be invaluable as the basis for future work in the direction of reform amongst these places.

We have had three or four cases of yellow fever here, but no one has been alarmed. Some of the cases showed, however, that the capacity of the yellow fever germ for defying precedent and evading pathological laws is still unexhausted. The bark Wallace left Havana June 28th, and reached quarantine July 3d, with two cases of malarial fever on board. She was quarantined for ten days and thoroughly disinfected. By the end of that time the sick seamen were well and the vessel proceeded to the city. About July 26th the stewardess was taken ill with symptoms of malarial fever and was sent to Presbyterian Hospital; two or three days later she died, and just before death the symptoms becoming suspicious, a post-mortem was made and the evidences of yellow fever were found. The incubation of the disease was therefore nearly thirty days, unless it is assumed that the poison was carried about in her clothes for twenty-five days and that it then "struck in." In any event the case is perplexing. Nor is this the end of the now much noted vessel. After having been thoroughly fumigated, scraped and washed at quarantine, she went to a dock in Brooklyn; while there a clerk who occasionally visited her was taken with yellow fever and died. This shows at least that fumigation is not at all reliable, and I find that there is a growing skepticism about it. Indeed the only certain thing is fire. Next to it we must first try fumigation, hoping by this method to kill the germ—if it is a germ; then, after this, we must try baking, in hopes that in this way we may decompose or drive off the infecting gas—if it is a gas. Mortals can do no more in that line at present.

New York has generally been thought to have plenty of hospitals but there is to be, in fact now is, one more. The Marine Hospital Service has established one on Bedloe's Island, an island

in the harbor about a mile below the Battery. It will accommodate nearly one hundred and fifty patients and will soon be enlarged. The seamen treated by this service had heretofore been placed in the various city hospitals; but it is the policy of the service—and a wise one—to treat its own patients, hence the present institution. It will prevent the dangers of any more yellow fever cases being carried to the city and be of much value in that respect. With the perfectly pure air (and plenty of it) which sweeps across the island there will be an opportunity also to learn whether Lister's method is not a superfluity under perfectly salubrious conditions. I am quite confident myself that such a conclusion will be reached. Much valuable work by the way, both medical and surgical, may be expected of this service in the course of a few years, for it is, as far as statistics are concerned, a vast hospital treating from twenty to thirty thousand patients a year, and these statistics are to be carefully worked up.

In visiting some hospitals a short time ago I was quite struck by the discrepancies in the treatment of pleurisy-with-effusion. In one hospital the use of the aspirator is absolutely forbidden no matter how long the effusion remains and provided of course that it does not become purulent. The dictum is that the third aspiration always causes empyæma. The treatment employed was that of Niemeyer: blisters, diuretics, tonics, possibly cathartics. A short time before, at another hospital, I saw about forty ounces of serum removed from a chest in which the disease had lasted for three or four weeks. There was no dyspnœa, but the patient had a little fever, had no appetite and was in fact not doing well. The serum did not re-accumulate after its removal and the patient steadily convalesced. There was no doubt about the benefit of the operation. Although no one will deny the danger of aspiration in subacute pleurisy it is not safe to dogmatize.

I fear I have put but little of interest or value in this letter, but I beg you to consider the temperature, and allow me to finish rather abruptly with a prescription for spermatorrhœa:

Tr. humuli	40	C. C.
Tr. camph.	30	C. C.
Tr. opii.	10	C. C.
Syr. tolu, q. s. ad	100	C. C.
M. Sig. 4. C. C. at night.		

It was given me by Dr. W. C. W. Glazier, Asst.-Surgeon Marine Hospital Service, and has had much endorsement, some of it very strong and rather amusing. The sailor is very subject to the affliction for which this is prescribed, but in him the disease almost always yields to the above remedy. One sailor who returned cured said that it had such a magic effect upon himself that he had given it to his messmates, and had in fact treated and cured the whole crew during his voyage; thereby winning for himself much glory and depriving the proprietor of a "Museum of Anatomy" here to whom seamen very generally resort, of a number of generous fees.

I will add another prescription, much used amongst this class, for gonorrhœa :

Zinci sulpat.	2	Grms.
Bole Armenian	4	"
Morph. sulph.	5	"
Aquæ.....	572	C. C.

M. Sig. Use as injection four or five times a day.

There is nothing that will, as a rule, lessen the urethral discharge with more rapidity than this, at least amongst the seamen, and their quota of this particular variety of pathological secretion is sufficiently large to make the evidence quite valuable.

ARTICLE XV.

CORPORAL PUNISHMENT.

Editors CHICAGO MEDICAL JOURNAL AND EXAMINER :

My attention has for a number of years been called to injuries caused by occasional cases of too severe or recklessly executed punishment of school children. Foremost educators, while not believing it expedient to prohibit corporal punishment, acknowledge that injury, injustice and sometimes death even, do now and then occur from its use. These serious results may arise from fright or from concussion of the brain produced by merely jerking the child about, or—the most frequent cause—inflicting the punishment upon the child's head. I have known

death to occur solely from the fright, although fatal results are not likely to arise except from immediate blows upon the head. No one form of punishment is so dangerous as boxing the child upon the ear. Not only is injury to the organ of hearing often produced, but inflammation of the brain frequently follows, and death has been the result. In the family this matter of injurious methods of punishment is not by any means beyond our influence, if we will but take pains to inform the people upon the subject. If corporal punishment is allowed at all in schools, its use ought to be carefully guarded. No teacher should be allowed to punish a child by rudely jerking it about, by striking it anywhere on the head, or with any instrument whatever, except it be flexible and with smooth edges. These requisites are best fulfilled by a rubber strap with rounded edges.

Moreover, no punishment should be permitted except it be inflicted in the presence of a principal, another teacher, or a school trustee, as a salutary check upon undue temper or excitement. Every case of corporal punishment should also be reported in writing to the board of school trustees, stating the offense of the pupil, the manner and severity of the punishment. I have known the above rules adopted by a board of school commissioners to reduce the number of cases of corporal punishment eighty-eight per cent. in one month, and the school continued meanwhile even more orderly and satisfactory than before. I am about collecting statistics of serious and fatal injuries caused by corporal punishment, and I write this article to request all the readers of the JOURNAL AND EXAMINER to forward to me statistics and history of all cases that may have come to their knowledge, with the date, place, name of child, character of punishment, and its results; also the offense for which the punishment was inflicted. Add other points, history, etc., if time and inclination permit. I urge all to give the subject the little attention needed, to write me the main facts, at least, of all cases they have known, and thereby make the report more valuable. The information thus obtained I will communicate through this journal.

B. P. MARSH, M.D.

Bloomington, Ill.

ARTICLE XVI.

PHYSICIANS' VACATIONS.

Editors of the MEDICAL JOURNAL AND EXAMINER :

What the *Northwestern Christian Advocate* says of ministerial vacations applies equally to physicians. The physician as well as the minister will come back from a sojourn in the country, the mountains or at the sea shore, "with fresh coals from off the altar, and such return will quicken his own zeal, and mutual good will follow." His people, as well as the minister's, all take a vacation, and are willing to give a vacation. It is undeniable that physicians, of all people, are most indifferent to their own health, and nothing but that happy division of labor into mental and physical, sedentary and out-door life, accounts for the good average health of the profession, in spite of constant, uninterrupted application to the most difficult and dangerous of arts. The legitimate medical work is not a lucrative one, as every physician knows, notwithstanding a good deal of boasting on the false principle that pretended success begets success, and the popular opinion. But there are few physicians who cannot lay aside a few hundred dollars for a quiet summer vacation with his family and friends. And as things go now, he will probably find wherever he may go among the popular places of resort, many of his families who will rejoice at his presence, and that they are not compelled to entrust themselves to strange physicians, who, destitute of that intimate knowledge with constitutions and temperaments which the family physician alone possesses, have no resource but the raw principles of their art. Some of the older physicians go away for the express purpose of emancipating themselves from the laboriousness of their professional work, but the young man, and many at middle age, dare not leave home, lest they suffer much loss and their hard-earned triumphs be neutralized. But if the experience of some of the physicians who have left home for health and recreation be considered, it will be seen that they have not only not lost but gained. My late partner in Boston was absent two years in Europe, Egypt

and the Holy Land, and the very day of his return he had as many calls as he could attend to — not because he put forth a personal effort, but because his return had been waited for with expectancy, and *that succeeding year's work* repaid him in money, for his mind had been invigorated and enriched and his physical strength so much increased that he worked without friction. Then, too, we all recollect the experience of Sir Henry Holland, who, at the outset of his long and successful medical career laid out a scheme of annual travel. He says it was in no way injurious to him, but adds: "Had I not been attached to my profession, and had it not happened that my practice lay chiefly among the classes who are absent from London in the autumn, the result might have been different." His early resolution as to the matter of travel, steadily persevered in, proved gain to him in all succeeding life. "I have come back each year," says he, "refreshed in health of body and mind, and ready for the ten months of busy practice which lay before me. On the day or even hour of reaching home from long and distant journeys, I have generally resumed my wonted professional work. The new methods of inter-communication since steam and electricity have held empire upon the earth, often enabled me to make engagements for the very moment of my return." He took long journeys, and was absent a long time, and was known the world over, not only as one of the greatest of physicians, but one of the greatest of travelers. Thus he had the amplest opportunity to study *man*, which is always better than the study of books, especially to one jaded out with professional labor. It is not necessary, however, to take long journeys, or aspire to the reputation of a cosmopolite in travel, but for mental and bodily rest and invigoration to take ourselves that change of air, scene, diet and companionship which other professions find necessary, and which we all recommend to our patients.

DR. JAMES I. TUCKER.

Editorial.

MEDICAL SOCIETIES.

Is it wise to encourage the formation of medical societies with territorial limits including parts of two or more States, or the whole of a group of States? This question has been forced upon our attention several times during the last few years, by the formation and maintenance of the Inter-State Medical Society, embracing a small part of Illinois and Iowa, and a Tri-State Medical Society, embracing a large part of the States of Indiana, Illinois and Kentucky. And now, in looking over the proceedings of the Louisiana State Medical Society, we find that initial steps are being taken to organize a "Southwestern Medical Association," to embrace the States of Louisiana, Mississippi, Alabama, Texas and Arkansas. That the subject of a proper and efficient organization of the medical profession is one of great importance, will be admitted by all who have given it thoughtful attention. At the recent meeting of the American Medical Association, in Atlanta, Dr. S. E. Chaillé read a report or paper on the subject, in one of the Sections, that was deemed of sufficient interest to have the greater part of it read before the whole Association. In accordance with the recommendations of that paper, a committee of five was appointed, to report at the next annual meeting, on the ways and means for securing greater uniformity and strength of organization of the State Medical Societies and their auxiliary branches. At present a few of the State Medical Societies partake more of the nature of annual mass meetings of the profession than of permanently organized representative bodies, they having no affiliated local societies and receiving no regularly appointed delegates. This is more especially the case in Michigan.

The State societies in much the larger number of States are composed of a mixed membership, consisting in part of delegates appointed by district, county and city medical societies, and in part of permanent members who have either previously served as delegates or have been elected by direct vote of the society. Some of the State societies, and many of the local organizations, are incorporated by special legislative enactments, and many others are simple voluntary organizations, sustained only by such constitutions and by-laws as each has chosen to adopt.

If the mutual improvement of the members, and the direct advancement of medical science, were the only objects to be gained by medical society organizations, the diversities to which we have alluded would be of no importance. Neither would it be of any importance whether a society was composed of members living in parts of two or more States, or wholly in one State, or in the whole of three or four States. But this would be a very narrow and erroneous view of the objects that should be obtained, from a proper social organization of our profession. We have to deal not only with the acquisition of knowledge and its application in the treatment of disease, but we must deal equally with all the important questions involved in preventive medicine or sanitary science, as well as in the education and ethical relations of the profession itself. A proper view of these subjects will show any thoughtful mind that we have relations to the proper enlightenment of the public, and the guidance of legislation concerning many of the more important interests of general society, no less intimate or binding upon us than those pertaining to the direct treatment of the sick. The obligations arising from these relations to certain general interests of humanity, and to our own ethical and educational interests, cannot be efficiently performed without concert and concentration of action and expression; and this can be obtained in no other way than by professional organization and frequent interchange of views. To give force and efficiency to these mutual interchanges, and to expressions relating to questions concerning public health and welfare, the social organizations must be sufficiently complete to fully and fairly represent the whole profession; and in its subdivisions must correspond as nearly as possible with the muni-

cipal or legislative divisions of the people for whose interests we labor. If, as in most of the countries of Europe, all our laws were enacted and enforced by one general government, it would matter but little whether, in the formation of medical societies, any attention was paid to State or county lines or not. But with us, nearly all the legislation relating both to the education of our profession and the sanitary interests of the people, is done by State and municipal governments acting independently of each other. This fact alone is sufficient to show the necessity of having our professional organizations correspond mainly with these political or governmental divisions of the country. It is natural and proper that the physicians of each city, county and State should entertain a special interest in the sanitary condition and legislation of their own State or municipality, and should be better prepared to give the people advice concerning these matters than those of distant States. Again, only a small proportion of the whole number of practitioners can afford to leave home or go any distance to attend medical society meetings; and only a very much smaller number can afford to leave home and spend a week to attend medical society meetings more than once or twice a year. From these considerations, it is obvious that in our country the natural plan for organization of the profession, and the only plan that admits of being made so complete as to include all the regular members of the profession, is that of city, county, state and national societies. The aim should be, to make the two first embrace in their membership all the regularly educated members of the profession in good standing, in their respective cities and counties; and the two last should be essentially representative bodies—the state society receiving delegates on a uniform ratio of representation from the city and county societies, and the national organization receiving delegates in like manner from the state societies. This is essentially the plan now existing in a large proportion of the states. The city and county societies holding their meetings at the doors of their membership, can meet often and confer the benefits of free interchange of views and development of opinions on all the members, and as they elect the delegates to the state societies, these will concentrate the facts, opinions and policies developed in the local

organizations, and give whatever is valuable a just and efficient influence in guiding public opinion and legislation in their respective States, concerning the sanitary interests of the people and the education of the profession; and the national organization being composed essentially of delegates from the several state societies, should constitute a common bond of union for the whole, not only still further sifting and concentrating the facts, opinions and policies developed in the state societies, and through their several delegates returning them back revised and corrected, to become common property for the whole profession; but also by the free social intercourse of the delegates, more effectually destroying local prejudices and sectional rivalries, and uniting the profession of all the states in fraternal fellowship. It is easy to see that if such a plan was actually carried into effect in each state and territory, it would constitute so complete an organization that it would be possible for our profession to regulate all matters pertaining to the education and qualifications of its members, as the clergy do through their conferences, synods and diocesan assemblies — or the legal profession through the courts. Is it not, then, greatly to be desired that all possible influence shall be concentrated in the direction of extending and perfecting the local social organizations of the profession, and in making the state and national organizations more strictly representative in their character, more efficient in their modes of work, and more definite in their plans and objects? Will not the organization of societies intermediate between the State and national associations necessarily tend to divert interest and attention from both of these? If we form a Southwestern Medical Association, why not a southeastern, a northwestern and a northeastern as well? If we have a *Tri-state* society in one instance, why not organize bi-state, tri-state or quadruple-state societies all over the Union? But if such organizations multiply, is there not danger that both the individual state, and the national associations, will be so far weakened and disintegrated as to deprive them of all efficiency, and the profession find itself again fostering mere sectional interests and prejudices, instead of State efficiency and national harmony. The subject is one of great intrinsic importance, and we hope it may receive the attention it deserves.

NATIONAL AND STATE BOARDS OF HEALTH.

It is pretty generally known that the last congress not only appointed a "National Board of Health," of which Prof H. A. Johnson, of this city, is a member, but half a million of dollars was appropriated and placed at the disposal of said board.

The law creating the national board contemplates its direct co-operation with state boards of health, wherever such exist, and with such other state quarantine and sanitary authorities as may have been established. It is desirable that all our readers should be well informed in regard to the relations between the national and state boards, particularly in regard to the expenditure of money and the obtaining of supplies. Hence we copy the following in full, from the *National Board of Health Bulletin*, for August 16 :

NATIONAL CO-OPERATION WITH STATE AND LOCAL BOARDS.

Although the proper method of securing the co-operation of the national board of health with state and local boards, in preventing the spread of yellow fever from one State into another has heretofore been published and widely circulated, it happens almost daily that applications are received at the office of the national board which require to be returned to the parties making them, by reason of their failure to comply with the conditions under which the board is authorized to grant the desired aid. It is accordingly found to be necessary again to call attention to certain points which should be observed by state and municipal authorities in making application for aid and co-operation. To this end the following circular has been prepared and is now published.

CIRCULAR NO. 7.

The following rules govern the action of the national board of health at present in aiding State and local boards to enforce regulations of such boards preventing the introduction of contagious and infectious diseases into the United States, or into any one State from another.

1. The regulations to be enforced are those of State and local boards, whether adopted at the recommendation of the national board or otherwise, and not those of the national board. The national board has recommended certain regulations for adoption by State and local boards. Up to the present time these recommendations have been adopted by the following boards, viz.:

The State boards of Arkansas, Illinois, Kentucky, Louisiana, Mississippi, New Jersey, North Carolina and Tennessee; the local boards of Brunswick, Ga., Brownsville, Tex., Bayou Sara, La., Cairo, Ill., Carlinsville, Ill., Decatur, Ala., Delhi, La., Fernandina, Fla., Huntingdon, Tenn., Jacksonville, Fla., Lauderdale County, Mississippi, Meridian, Miss., Mobile, Ala., Pensacola, Fla., Shelbyville, Tenn., Saint Louis, Mo., Tampa, Fla., Vicksburg, Miss.

The regulations of the above named boards are therefore to a certain extent uniform, and approved by the national board, and therefore are such as it will aid in enforcing, when necessary.

State and local boards which have not adopted the recommendations of the national board are requested to do so as soon as convenient, in order to secure uniformity of action.

It should be observed that these recommendations are for a minimum amount of precaution, and therefore that additional precautions may be taken by state or local boards if deemed necessary, it being borne in mind all the while that the end in view is to secure or restore the public health by measures which interfere with travel or traffic as little as possible; in other words to render commerce *secure*; and (with rare exceptions) *not to put an end to, or even suspend it*. In this connection it is proper to add that non-intercourse quarantines, especially by *local* authorities, are not approved by this board.

2. Applications to the national board of health for aid should be made by or through the state board; or in case there is no State board, then by or through the governor of the State.

3. Application for aid should give *details* of what is required, and the estimated cost for each item. Amongst other things should be specified the duties and powers of the officers whose appointment or payment is requested.

4. The application should be accompanied by an official cer-

tificate from the governor of the State or the mayor or other chief officer of the municipality, respectively, to the effect that there are no state or municipal funds available to carry out the particular sanitary measures because of which the application is made. Official information should be given therein of the adoption by such state or local board of any rules and regulations that have been recommended in such case by this board, and of any other state or local rules and regulations that appear to be necessary for the purpose in question.

5. Of the supplies required for the sick those furnished by this board to local authorities shall, as a general rule, be applied to other objects than those of shelter and furniture, which should be furnished by such authorities. Where however it shall be otherwise ordered the local authorities will be expected to account to this board from time to time for the safe-keeping and proper use of the furniture, provisions, medicines, etc., so furnished.

6. Whenever this board shall order the erection of temporary buildings, or provide any buildings for the purpose of quarantine the necessary contracts therefor shall be made by one of its own officers or agents, subject to the approval of the board or of its executive committee.

7. Care should be taken that the officers to be paid from funds furnished by the national board are employed only in such number and for such time as there is actual need of their services. The national board of health reserves the right of judging from time to time, by means of reports received from its own agents, whether such need exists.

8. Funds are not furnished by the treasury to state or local boards. They are placed in the hands of the disbursing clerk of the national board of health, by whom bills, properly certified and approved, will be paid by check on Washington or New York. All bills must be in accordance with the estimates as approved by the secretary of the treasury, must be made out in duplicate on forms furnished by the national board, and be *certified*, as to their correctness, by some authorized officer of the state board or by the governor of the state and must be approved by some member or special inspector of the national board duly authorized.

The names of all persons whose services as inspectors, etc., are to be paid for out of its funds must previously to their appointment be submitted to and approved by the national board.

It is expected that at the close of the season a full report will be made by state boards of health to the national board as to their operations in carrying out those rules and regulations for the prevention of the spread of yellow fever, in which the national board has rendered aid and co-operation, and it is desired that copies of all orders issued from time to time to inspectors shall be promptly furnished to this board.

It is to be remembered that a full account of its expenditures must be made by the national board of health to congress, and that such account ought to set forth these expenditures in detail, and exhibit their propriety and necessity.

It is therefore essential that state and municipal boards shall co-operate with the national board in supplying material for such an account, and it is earnestly desired that they will preserve and furnish due evidence of the propriety of each item of their expenditure for both persons employed and articles purchased with the funds in question; particularly as the future aid of both state and national boards must depend largely upon the record for efficiency and economy made during the year now current.

PHYSICIANS' VACATIONS.—One of our correspondents calls attention in the present number, to the subject of professional vacations. He seems to think a summer vacation or periodical recreation is as necessary for the physician as for the clergyman, the lawyer, the merchant, etc. And he intimates that the physician by resorting to some one of the fashionable watering places, would not only find recreation and recuperation, but could also keep up some profitable practice by professional attention to such of his home patrons as he might find at the same resorts. The reasoning of our correspondent might be good so far as pecuniary considerations are concerned, if the physician was so *unfortunate* as to have the principal part of his practice in such families as are able to take summer vacations and he can have them all spend their vacations in one place. But the truth is, that not one practitioner out of a thousand has such a prac-

tice ; and not one family out of a thousand takes summer vacations. The fact is, that the great laboring classes constituting three-fourths of the human race, have no vacations. To them, the summer is more especially the season of active business, as well as the season of most sickness. Suppose the busy practitioners of medicine all take the advice of our correspondent, and follow some half dozen of their more wealthy patrons to the watering places and noted summer resorts, what is to become of the thousands left at home with their sick wives and babies ? But even if all these were of no account, we should still doubt the correctness of the idea or principle that seems to underlie the modern practice of taking annual *vacations*. The prevalent idea appears to be that the merchant may confine himself to his counting-room from early morn to late in the evening ; the lawyer to his office and the court-room ; the clergyman to his study and church ; the doctor to his patients ; and the artisan to his shop ; ten or eleven months of the year, regardless of daily rest, fresh air and needed exercise, all because they are going to have one or two months of vacation in which to recruit. If each in his individual avocation finds it difficult to keep his weary limbs and more weary head at its daily task until the set time for the vacation comes, he has only to smother his uncomfortable feelings by a little more of those narcotics and anæsthetics found in tobacco and the varieties of fermented and distilled drinks, or to go to his doctor for a blue pill and some bromide, meanwhile sustaining his courage by the remembrance that each day brings him nearer to his annual panacea, the vacation. Stript of its fashionable pretenses, all this modern noise about annual vacations for the maintenance of health, is founded upon the fallacious idea, that the latter is a commodity to be gathered in at some particular season, and stowed away in some part of the body, like a stock of merchandise or provisions, to be drawn upon for the rest of the year.

When all classes learn that health is a *condition* of a complicated and delicate organization, to be maintained by a daily balancing of the waste and supply, exercise and rest, and not a commodity to be stored up at one time and drawn upon at another, they will also learn to adjust their daily occupation

more in accordance with physiological laws, and we shall hear much less about vacations. These remarks, of course do not apply to proper changes of climate for the purpose of aiding the removal of diseases or known predispositions to disease; nor to traveling in distant places or countries, either for business or pleasure; but simply to that very popular notion among all classes, that a vacation of a few weeks and a resort to some favorite place, is an ample remedy for the accumulated ills of all the rest of the year.

EXPLANATION. — The article in the present number of the *JOURNAL AND EXAMINER*, headed, "On Fracture of Basio Cranii," was sent to us by the secretary of the McLean County Medical Society, with the statement that its publication was requested by a vote of the society. It being a good article, although the name of the author was not appended, we sent it to the printer and immediately wrote to the secretary for the name and residence of the author, but up to the time of going to press nothing further has been heard from him. Hence the article appears as an orphan for the present.

MEDICAL COLLEGES. — Before another number of our journal will reach its readers, the annual lecture terms in the medical schools in this city will have commenced. The general introductory lecture to the course in the Chicago Medical College will be on the evening of September 30; that in the Rush Medical College on the evening of September 30; and the first lecture of the course in the Woman's Medical College will be at 10 a.m., of the first Tuesday in October.

LACERATION OF CERVIX UTERI. — Dr. S. C. Thompson, of Cedarville, Illinois, sends us an account of a case he regards as one of laceration of the cervix uteri, giving rise to severe and protracted suffering; and which was ultimately cured by wearing a well adjusted Fowler's pessary. Hence he asks the question, whether, the proper and skillful use of this particular pessary may not be substituted for Emmet's operation, in the treatment of this injury.

Reviews and Book Notices.

ARTICLE XVII.—THE REPORT OF THE DEPARTMENT OF HEALTH OF THE CITY OF CHICAGO, FOR THE YEAR 1878.

The recent appearance of this annual document suggests a number of interesting reflections. A considerable portion of the report, aside from the purely statistical matter, is occupied by an account of the investigation of trichina in pork, conducted by Mr. H. F. Atwood, vice-president of the State Microscopical Society, and Dr. W. T. Belfield, Demonstrator of Physiology in Rush Medical College. Out of one hundred hogs examined by these gentlemen, eight per cent. were infested by the parasite. They, however, were able by their experiments to confirm the opinion of previous investigators, that a temperature less than that of boiling water is sufficient to destroy the trichina, so that cooked pork need not be feared. Dr. Belfield went still farther. He swallowed a piece of fresh meat in which the microscope exhibited twelve living worms, but he has never experienced the slightest disagreeable result. It is thus rendered highly probable that a considerable dose of the parasite is needed to produce sensible toxic effects.

The subject of regulating offensive trades forms a very interesting section of the report. The health commissioner has favored us with a full account of the manner in which the "143,227,070 pounds of blood, bones, intestines, scraps, etc., were furnished by our own slaughtering houses, to be cooked and dried for market during the year past." The careless manner in which this was done has been the cause of the fearfully offensive odors which for years have disturbed the comfort of our citizens. The commissioner gives a very graphic account of the difficulties which were

encountered in the effort to abate this nuisance. The final triumph of the officials who were charged with this matter, shows what can be accomplished when energetic legal measures are based upon sound moral principles. No man has a moral right to deliberately create and maintain a nuisance in the face of his fellow men. Planting itself upon this high and unassailable position, the Supreme court of the State amply vindicated the rights of the people, and permitted no petty quibbles to hinder the operation of the measures of self defense for which we are indebted to the ex-city attorney, Hon. Richard H. Tuthill. It is, however, to be regretted that from this gallant conflict the officials did not emerge with hands thoroughly clean. The evil which they attacked was a nuisance of the most offensive character, but there is not the slightest shadow of evidence that it was dangerous to the health of the city. In their zeal against the enemy, the officials did no little harm to the community by painting the foe in colors darker than could be justified by the facts. Such stenches are very disagreeable, but it has never been shown that they produce or even aggravate diseases. To say nothing of considerations drawn from chemistry and physiology, the mortality reports of the city are a sufficient proof of this proposition. With an annually increasing production of stenches there has been a continually decreasing rate of mortality. We have no doubt that many delicate persons have experienced an increase of suffering in consequence of reading and hearing so much about the dangerous character of the slaughter-house gases. For this the slaughter-houses are not so much to blame as the ignorance or the zeal which propagated such errors.

The brief remainder of the report is occupied with a variety of subjects, first of which may be noticed the returns of births and deaths, from which it appears that the number of deaths during the year 1878 was 7,422. "The total death rate to population was for the year 16.50 per 1,000;" 11,152 births were registered during the year. The commissioner rightly believes that this figure still falls "short of the actual number of children born in our city." He also volunteers the statement that "the legal value of such registration is of vast importance, and the humblest born child has rights in this matter of which our profession is

made the guardian." Now, if it is true that the value of such registration is of vast importance, and if the humblest-born child has rights in this matter, there is no one to whom the care of such valuable rights more properly belongs than to the legal and natural guardians of the child, its parents. If the law-makers hold the opinion that the protection of this right should be taken from those who are most interested in its security, and should be assigned to strangers who have not the slightest interest in the matter, it is worth while at least to discuss the wisdom of trying to secure the desired result by police regulations which can be evaded without difficulty, and which, moreover, are in direct antagonism with that article of the State constitution which declares (Art. II, Sec. 13) that "private property shall not be taken or damaged for public use without just compensation."

We are very well aware that the world is full of people who believe in making doctors work for nothing; but certainly no reputable physician, even though he be the tenant of an official position, should ever countenance such injustice. Every law, moreover, which, like this, diminishes the responsibility of parents by transferring a portion of their duty to the shoulders of strangers who are reluctant to assume such care, is a positive injury to the entire community. Good laws seek to foster the sense of individual responsibility where it belongs. Bad laws diminish that sense, by transferring to the government, or to certain classes, those duties which pertain to every citizen in his private capacity. In pleasing contrast to the sullen brutality with which our new State law demands uncompensated pecuniary outlay and service on the part of physicians, is the recent action of the United States government in connection with the approaching national census. A polite note from the superintendent of the census invites, but does not command, a return of deaths from every physician. The necessary forms are furnished, post paid each way. If any additional expense should be incurred, it will be promptly refunded by the government. Such a request cannot fail to meet a cordial response, even from men who would go to prison rather than yield to a forcible invasion of their constitutional rights.

A brief paragraph is all that is devoted to scarlet fever. The

report states that "placing of warning cards still receives the almost unanimous approval of the profession in the city"—an assertion sufficiently robust to rejoice the most ardent admirer of the late Baron Munchausen. The fact is, that the profession has learned to "get around" the law so comfortably, that its present administration is no longer the nuisance which it once was. But, even if the profession were unanimous in their approval of warning cards, that would not make it right for the government to intrude them into the private abode of private citizens. The warning card, as a notice of sickness, is in itself harmless enough, but as the symbol of an officious intrusion by the government, it is thoroughly outrageous. The officials may issue advice, and may properly recommend the use of cards, if they must do something; but when they go beyond this limit, they become impertinent, offensive, and injurious to the cause of sanitary improvement, as the frequency with which scarlet fever is successfully concealed abundantly proves. In dealing with this subject, the officials need not wait for orders from Boston, but they should learn wisdom from the course of the intelligent physician, who, when people refuse to be drenched with Glauber's salts, asks himself whether a bottle of citrate of magnesia or a sugar-coated pill will not do the work as well. Doctors who insist upon forcing nauseous doses into their patients need not be surprised if common folks keep away, and do not let them know when they are sick—especially after they have learned that the filthy drought does no good. Health officers may very properly *advise* such measures, if they consider them useful; but by legislative enactment to *compel* the posting of warning cards and the private performance of other sanitary operations which may chance to be fashionable, is a great mistake. Sanitary science, so-called, is in a very crude condition, and much that is now thought essential—remedies which enthusiasts are anxious to ram down the throats of everybody—will soon have to be abandoned, because in direct opposition to those higher truths of science which are at present known to comparatively few, but which will become the common property of a subsequent generation. It is a very difficult thing to repeal even a bad law; consequently it is unwise to give the authority of law to the

shifting opinions of a half formed science. Already one consequence of erroneous teaching and unscientific law-making is apparent in the growth, inside as well as outside of the profession, of a morbid public sentiment regarding the nature and functions of disease, which will greatly retard the recognition of true science. Until the fundamental principles of science, and the highest results of experiment and observation become more generally known to sanitarians, and to the medical profession, health officers should be very cautious about threatening people with the terrors of the law. It is too much like trying to create an established church by the aid of dungeon and faggot. For a long time yet, the principal occupation of our officials should be the search for truth and the diffusion of genuine knowledge, rather than the enforcement by law of questionable dogmas based on doubtful hypotheses of the most transitional character.

The proceedings of the Health Office relative to small-pox and yellow fever scarcely call for comment. We may, during the prevalence of the imported epidemics — cholera, small-pox, yellow fever, typhus fever and the plague — cheerfully applaud the very methods which are utterly wrong in the conduct of the government towards those ordinary endemic diseases for which the ordinary resources of the community have always sufficed. As in time of war we praise the general who rides rough-shod over ranks of living men, with no thought of anything but victory; so in times of imported epidemic disease, the officials may exercise a license which no common endemic can ever excuse. The great fault of our officials consists in the fact that they have not yet learned in times of peace to refrain from martial practices. A conspicuous example of this common defect is found in the following declaration of the report (p. 9): "To reform tenement houses, suppress epidemics of preventible diseases, reconstruct, clean and disinfect vaults, regulate offensive trades, inspect the food supplies, and destroy or consign to the rendering tanks everything unwholesome, to elevate the standard of municipal cleanliness in streets and alleys and yards — all this is the legitimate work of the Health Department, and concerns every citizen." It would be difficult to find a better illustration of that confusion of ideas which is so common among inexperienced

sanitarians who have not yet mastered the alphabet of sociology and of political science. Because it may be proper for public officials to keep the streets and alleys clean, it does not follow that it will be wise for them to "reform tenement houses, and reconstruct vaults." Because it may be expedient that they should maintain quarantine against foreign plagues, it does not follow that they can wisely or successfully attempt to "stamp out" endemic diseases which are most efficiently treated by private enterprise. The utterance of the Commissioner amounts to nothing more nor less than the adoption of the entire Communist programme, which throws upon the State the whole responsibility for the care and maintenance of every citizen. It, moreover, attempts to justify the importation of rude, despotic methods into the quiet repose of civil life. This reckless firing of revolvers and slashing with sabers among inoffensive citizens — this cheerful willingness to blow up houses, with people in them, when there is neither war nor conflagration to justify such violence — this stentorian roaring for a fire-engine to put out a bedroom candle — is what fills thoughtful men with disgust at many of the antics of our sanitary officials. Nor can the results of their efforts be urged in excuse for such unnecessary intrusion. A candid review of the effort to regulate tenement houses in London, or the social evil in St. Louis, is sufficient to show the utter failure of such official intermeddling. To get at the facts in such matters, it is necessary, however, to seek information from other sources than the proverbially one-sided and self-laudatory official documents. Poverty constitutes no valid reason for interference with the domestic affairs of people. The instincts of even the poorest classes prompt them, like other people, to live in houses as convenient and as healthful as they can afford. Compulsory sanitation only creates additional expense, which drives the poor into still poorer quarters, so that they cannot be helped in that way. The only method that has thus far proved successful in every sense of the word, is the method of private benevolence in the way of disseminating advice and the means of moral improvement among the lower classes. No amount of legislation will ever reach the difficulty; but every increase of knowledge, and every advance in moral evolution, will pro-

portionately relieve these difficulties, without the aid of civil law.

It is frequently stated that the poor should be protected by the government against the causes of disease which are said to infest the habitation of the lower classes. It is true that certain diseases are more often encountered among the poor than among the rich, but the reverse of the proposition is also true. Every class of people has to contend with its own peculiar difficulties; and if it is right for the government to assume the special protection of any one class, there is no reason why it should not equally assume the protection of all. But the intelligent and energetic members of society prefer to provide for themselves in all the ordinary exigencies of life. It is the lazy people and their sentimental friends who are always calling for government aid. If now you undertake to protect this fraction of the community, you have to protect it against the consequences of idleness, luxury, intemperance and vice — thus interfering with the operation of the wholesome monitory laws of nature; and you do it at the expense of the meritorious classes of society. Having thus accustomed such worthless people to rely upon the government for protection against small-pox, and scarlet fever, and syphilis, and diphtheria, and sewer-gas, and scabies, it will not need the passage of many generations before they will demand protection by the government against the cold and hunger and nakedness for which they should themselves make provision. They will even demand to be washed at the public expense; and they will have no trouble in finding some demagogue ready to tax me heavily, that he may enjoy the advantage of running a free bath-house for the comfort of ragamuffins and black-legs whose only merit consists in their ability to handle a ballot on election days. It is even proposed to dignify such robbery by the name of *solicitude for the public health!*

This is the way in which Communists are produced; and a government which adopts the protective policy may thank itself alone for the growth of Communism and Socialism among its citizens.

The only wise course for society to adopt in relation to the evils which weigh upon different classes of people, is to undertake

their relief by private benevolence. An organized distribution of private charity, combined with a similar diffusion of scientific information and moral education, among the ignorant classes who form the extremes of society, would accomplish far better results than can ever be effected by the largest army of politico-sanitary officials. A comparison of the work done by a philanthropic organization, like the Chicago Relief and Aid Society, with the mysterious performances of the County Agent, will sufficiently illustrate this point.

The only remaining portion of the report which demands notice is the section which treats specifically of tenement-houses. These are arbitrarily defined as dwellings in which more than three families keep house independently. The Commissioner finds this an almost unlimited "field of sanitary work." Finding no legal authority "to order the vacation of uninhabitable buildings, and to refuse to let them be again occupied until placed in proper sanitary condition," he has availed himself of the provisions of the following legislative enactment of March 9th, 1867: "In case the sanitary condition of the city should be of such a character as to warrant it, it shall be the duty of the Commissioner of Health to take such measures, and to do and order, and cause to be done, such acts for the preservation of the public health (though not herein or elsewhere or otherwise authorized) as he may in good faith declare the public safety and health to demand."

Taking this legislative utterance as his authority, he has undertaken to interfere, at his own discretion, with the natural laws of supply and demand which operate in tenement houses as well as everywhere else. This arbitrary assumption of extraordinary powers, for the purpose of dealing with the ordinary conditions of the daily existence of society, has been formally condemned by the highest courts of appeal. In New York the Board of Health sought to justify their analogous action in the matter of night scavenging by an exactly similar appeal to authority which was by law designed to be invoked only during extraordinary emergencies. The case was fully discussed in the courts, and the arbitrary action of the Board of Health was formally condemned by the Court of Appeals (*Gregory vs. New York*, 40 N. Y. 273). A dim consciousness of error seems to have invaded the mind of

our Commissioner, for he goes on to say: "It is true that this act was drawn to meet such emergencies as epidemics may present, but it is also true that these domiciles, without the energetic and vigilant attention of sanitary authority, become nurseries of every form of contagious disease, and of perpetual epidemics, and thus always stand as a great menace to the public safety and health" — all of which, by the way, is a gross exaggeration, which merits the sharpest rebuke.

Here, then, we have a public official openly confessing the commission of one of the crying sins of the age. Having no legal sanction for certain action, he nevertheless goes right on to act in accordance with his own arbitrary notions, and seeks to justify this course of behavior by an appeal to a law which he himself admits was enacted to cover a state of affairs which has at present no existence. That is the Turkish way of carrying on a government, but it is not a civilized mode of proceeding. This readiness to act without authority of law — this fondness for autocratic and mediæval methods of administration — constitutes one of the standing grounds of complaint against our modern sanitary officials. They delight in vague and general legislation which defines little, and leaves almost everything to the discretion of an officer who can throw dust in the eyes of the public by loose talk concerning the exigencies of the public health, whenever he is taken to task for unnecessary acts of despotism. Now such a state of things is all wrong. The conditions of public health are as simple and as capable of clear definition as the conditions of commerce or of agriculture. There is no more need of giving arbitrary powers to a Health Commissioner than there is of giving to a Custom-house officer the privilege of collecting such duties as he may see fit to impose. There is great need of improvement of our sanitary laws in this particular. They have evidently been drawn up with very little knowledge of the proper functions of government, and with a very imperfect comprehension of what should be done, or left undone, by the health officials. Consequently, while very minute in their specification of certain minor duties — such as registration of births and deaths — they are virtually silent about all the higher and more important duties of officers who are charged with the public

health. Nothing could be more gratifying to the ordinary politician ; nothing more disgusting to the scientist and the philosopher. What we need, in the first place, is a clear understanding of the sphere and legitimate functions of government in general. Then we need a complete definition of the limits which divide the public and common interests of men from their private interests and relations. Finally, we need a thorough recognition of what constitute the ordinary conditions and necessities of a community, and of what are the extraordinary and, so to speak, accidental exigencies of such a society. These elements of the problem are not difficult to define. But when we attempt to adapt legislation to these conditions, it becomes painfully evident that very, very few of our legislators are yet possessed of the knowledge and wisdom and moral sensibility necessary to reach a correct result. Take, for example, such a little trifle as the question whether the highest good of the community will be secured by placing warning cards upon infected houses, as was anciently done in epidemics of the plague, and as we now sometimes do in scarlet fever. The ordinary sanitarian, who thinks only of the avoidance of a *contagium*, jumps at once very naturally to the conclusion that a warning card and a stringent quarantine will accomplish the best possible result. But when we examine the subject calmly, in accordance with the clearest light that radiates from the triune source of science, philosophy and moral law, we find that the first thought of the ordinary sanitarian was erroneous, and that the measures founded upon his hasty conclusions not only defeat themselves, but also work positive injury to the human race. This, no doubt, seems like a very startling assertion ; and, at the present stage of the evolution of the average of mankind, it will not command anything beyond a very limited acceptance. In fact, we should need the space of an essay for the adequate presentation of the highest scientific thought regarding these subjects. If, however, any person of ordinary cerebral capacity desires to reach a definite and final conclusion regarding these matters, he can do so, but in only one way. He must first thoroughly master the principles of physics, of chemistry, and of physiology. (We may remark, as we go, that this will require something more than a mere recollection of

one's slumbers upon the benches of a medical college). He should then carefully read the works of the masters in biology. A complete study and practical knowledge of medical science should then follow. After this the advancing student should endeavor to compass the field of mental and moral philosophy. Then should come an investigation of the principles of law and of government; and lastly, we may conclude with a wide range of historical reading. Thus equipped, it is not difficult to judge of the right or the wrong of any question which may present itself to the sanitary legislator. Such a course of training is by no means beyond the reach of ordinary mortals — it is indeed the possession of a great many comparatively unknown individuals. But the attributes which carry one through such a course of training are not often united with the qualifications which win success in the political arena; consequently, the ordinary sanitarian, having become a sanitarian through the force of political combinations, finds himself incapable of accurate independent determination, based upon knowledge of scientific facts. Like all persons similarly situated, he either abandons himself to the blind guidance of an arbitrary will, or else he stands feebly agape, waiting for the utterances of some little sanitary pope in some distant quarter of the earth. The greater the distance, the greater the authority which, for him, invests such deliverances; hence one of the causes which give such currency to the Asiatic method now so fashionable.

We have dwelt thus at length upon this report, because it embodies nearly all of the fundamental errors which are now current in official circles. These errors are based upon doctrines of which the inaccuracy is well known to the higher circle of scientific men. But knowledge trickles very slowly through the masses of mankind; consequently, we must wait with patience until our sovereigns can learn. Fortunately, however, the general drift is in the direction of progress, and the time will surely come when this little flurry of awakening ignorance will have ceased, and our children will study with amusement the history of the manner in which we had to deal with this attempted revival of exploded ideas from the primitive ages of a barbarous world. The crudity and immaturity of thought which characterizes the

half-educated sentimentalists who are running to and fro, disturbing everybody with their old-fashioned whims, is well illustrated by their favorite maxim, "Health is more important than civil liberty." That is, they believe in treating the human race, not like free and intelligent moral beings, but like so many brute cattle, who are to be fed and watered and salted and branded and castrated according to such notions as may be fashionable among the tiny despots who are from time to time endowed with a little brief authority over the uncomplaining herd. That was the universal theory of government during the dark ages; but the more enlightened portions of the world are gradually outgrowing such ignoble ideas.

And now, in conclusion, let us not be misunderstood. In all this criticism we have no personal feelings to indulge. We speak only in behalf of true science and good government. While we must denounce error and cant and folly wherever they exist, we should thoroughly believe in sanitary laws, and in a stringent sanitary administration. But the laws must be wise, and their administration must be just. Our officers deserve great credit for much that they have done. For the conclusive manner in which they have demonstrated the impossibility of stamping out scarlet fever; for the splendid energy with which they have desolated Bridgeport; for the scientific way in which they have ventilated the sewers; for the general cleansing of streets and alleys; and for all similar beneficent actions, they deserve the highest praise. It is only when they have allowed themselves to be led astray by fallacies which are fashionable from Berlin to San Francisco, that they have exposed themselves to the shafts of an impartial and scientific criticism.

H. M. L.

ARTICLE XVIII. — HABITUAL DRUNKENNESS AND INSANE DRUNKARDS. By Dr. Bucknill, F.R.S., Fellow of the Royal College of Physicians — Late Lord Chancellor's Visitor of Lunatics.

In 1875, Dr. Bucknill visited the United States, and, being interested as a mental physician in drunkenness as one of the great factors of insanity, made numerous inquiries in regard to the results attained in inebriate asylums and homes of this country.

The doctor associated with and interviewed many of our oldest superintendents of institutions for the insane, and visited all the inebriate asylums and homes he could hear of in the Eastern States, except "one small private institution." There is no evidence whatever that has come to the reviewer's notice which shows that Dr. Bucknill was not perfectly honest in all his inquiries, or that they were made with any other purpose than that of eliciting truth. He does not believe in the pernicious doctrine that habitual drunkenness is a disease; therefore he was very severely criticised by those interested in the establishment of that dogma.

Sometime after his return to England — indeed, the following year — in a speech before the Rugby Temperance Association, he took occasion to state his views in regard to intemperance, and expressed his opinions candidly as to the danger of calling habitual drunkenness a disease. He also spoke in unmistakable terms of the direful effects of treating men for a disease which did not exist, by remedies which were not applied.

He says at p. 3, Art. III. that "he believed drunkenness to be a fruitful cause of disease, but not in itself a disease; and he looked upon inebriate asylums as an unfortunate attempt to coddle drunkenness and patch up a wide and fruitful social mischief."

In all his remarks, however, Dr. Bucknill excepts the Franklin Reformatory, of Philadelphia — of which Dr. R. P. Harris is physician — and it should be remembered that he did not visit the Washingtonian Home of Chicago.

Both these institutions have been ignored by the American Association for the Cure of Inebriety, because they refuse to inscribe on their banner, "Intemperance is a Disease."

Concerning the Franklin Home, he says: "This was the only place I saw in America where honest, earnest work was being done, not for the CURE but for the REFORM of inebriates." The doctor was very greatly pleased with the spirit manifested by the inmates of this Home, and expressed the desire to see institutions of this order established in Glasgow and Liverpool.

In regard to the heredity of intemperance, our author speaks with care, and with the evident desire of giving it all the prominence which the facts will justify. I am hopeful that his words

will influence some of those who so hastily jump at the conclusion that the appetite for alcohol, in any considerable number of cases, is handed down from a former generation, thus doing away with all personal responsibility in the matter. As a matter of fact, many of those whose reformation is the most easily accomplished, and the most perfect as regards time, are those whose ancestors, for two generations back, have been addicted to the habitual use of alcoholics; while on the other hand some of the most incorrigible—those who, after repeated admissions, and upon whom months of personal labor have been bestowed to insure a reformation, relapse immediately into their former habits—come from a stock perfectly free from the use of stimulants.

At p. 34 is found the following: "I am inclined to think that heredity from intemperance is a less important factor of insane drunkenness than it is generally supposed to be;" and still further he says: "However influential in the conduct of life a truth may be, however wholesome its full force, it is morally wrong and practically mischievous for it to be overstated, which I fear has been done with regard to the heredity of drunkenness. Moreover, if it be admitted that the tendency to drink is transmitted from one generation to another, and that the children's teeth are set on edge because the parents have eaten sour grapes, it does not prove that such an inherited tendency is morbid, for vice also is heritable."

We have here a book which every man and woman interested in the great work of reforming inebriates, should read. Doctors, lawyers and clergymen should read it. Above all, editors, philanthropists and temperance lecturers should buy a copy.

The work contains 100 pages, and is the best argument yet published against that pernicious dogma, that "drunkenness is a disease."

It shows with clearness and conclusion that reformation is something more than "leading for a brief time a life of indolent luxury, under a cloud of constant tobacco-smoke, with cards and billiards," and being impressed at the same time that they (men addicted to habitual drunkenness) are "interesting but helpless objects of social and psychological science."

Since 1873 (*Medical Examiner*, Chicago), the writer of this

review has advocated the theories now so ably given to the public by Dr. Bucknill, and it is to be earnestly hoped that the time is not distant when every right-thinking and right-feeling individual will use his influence against the mischievous doctrines promulgated by many so-called reformers, but which are so fully exploded in the pages reviewed.

C. W. E.

ARTICLE XIX. — DEMONSTRATIONS OF ANATOMY; BEING A GUIDE TO THE KNOWLEDGE OF THE HUMAN BODY BY DISSECTION. By George Viner Ellis. From the eighth English edition; pp. 716. Philadelphia: H. C. Lea.

This is the latest edition of a work well known in this country as well as in England. It is exactly what it purports to be — not a comprehensive manual of anatomy, but a practical guide for the worker, containing full and explicit directions, equally valuable to the novice or the advanced student. Inasmuch as it covers the same ground as Holden's somewhat less pretentious work, it is natural to compare the two. While hardly more practical, it is more full, containing probably the equivalent of two hundred pages of matter more than the latter.

If we complain at all, it must be of the illustrations in which reference is made to different parts by letters or figures, necessitating more time and possible confusion in identification, and being rather wearisome to the eyes. While some of the woodcuts are rather crude, a good feature of the work is the repetition of the same cut to avoid turning back a number of pages.

On the whole, we commend the work as probably the most complete of its kind in our language, adapted to the needs of all, but containing for the average student, perhaps, an embarrassment of riches.

R. P.

ARTICLE XX. — A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS. By Ambrose L. Ranney, A.M., M.D.; pp. 386. New York: Wm. Wood & Co.

The general impression left after examining this work is favorable. We hold that the general form in which the salient points of different affections can be best comprehended and contrasted, is the one which the author has adopted. There is nothing

strikingly original about the work, nor can it supply the place of larger treatises on surgery, but it certainly sets forth what it pretends to in a most admirable way. Not only are points of dissimilarity arranged in the most approved and intelligible way, but a marked feature of the work is the constant mention of "symptoms in common."

Whatever faults the work may contain are faults of omission mostly; though we are inclined to think that more space is given to the consideration of talipes than is necessary. In considering lesions about the hip-joint, we find no mention of the altered triangle formed by imaginary lines between the spine of the pubis, the anterior superior spine of the ilium, and the trochanter major — which seems an important oversight.

The nature of the work requires some repetition; but on the whole we are at a loss to see how more information could have been condensed in fewer words. While it is not complete, nor yet perfect in its present appearance, we regard it as a most valuable work, which ought to be found in every medical library.

To translate.

R. P.

ARTICLE XXI. — GENERAL SURGICAL PATHOLOGY AND THERAPEUTICS, IN FIFTY-ONE LECTURES. By DR. THEODOR BILLROTH, Prof. of Surgery in Vienna. Translated from the fourth German edition with the special permission of the author, and revised from the eighth edition, by CHARLES E. HACKLEY, A.M., M.D., Physician to the New York Hospital, etc., etc. D. Appleton & Co., 1879.

This purports to be a revised edition of Dr. Hackley's translation of the fourth German edition of Billroth's Surgical Pathology; a work now too well and too favorably known to require more than a passing notice. The practical value of the "revision" is naturally lessened by the fact that much of the added matter is in the form of an "appendix," so that the reader is constantly annoyed by being obliged to fit little slices of matter into their appropriate places in the body of the book. The work is abundantly illustrated by wood cuts, most of which are conspicuously poor and coarse. If anything more absurdly impossible in the way of illustrative "diagrams" are to be found in any

book printed within the last century, or if there are any "illustrations" in existence which more perfectly "illustrate" what "illustrations" should not be, than figs. 1, 2, 3, 4, 6 and 39 (which we cite as specimens merely), we have not chanced to see them. They remind me of the auction placards which adorn our fences and which are themselves adorned by amateur efforts in landscape gardening. But in spite of these faults, which ought to be corrected in the next "revision," Prof. Billroth's work is fairly entitled to be regarded as standard upon questions of surgical pathology.

I. N. D.

ARTICLE XXII. — ELEMENTS OF COMPARATIVE ANATOMY.

By Carl Gegenbaur, Professor of Anatomy and Director of the Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B.A., Magdalen College, Oxford. The translation revised and a preface written by E. Ray Lankester, M.A., F.R.S., etc., etc. London: Macmillan & Co., 1878.

We are compelled, both by want of space and want of time, to forego the pleasure of carefully reviewing this most excellent manual of comparative anatomy.

Perhaps the greatest merit of Prof. Gegenbaur's work consists in this — that "the comparative method is put prominently forward as the guiding principle in the treatment of the result of anatomical investigation," and this explains the real value of the study of comparative anatomy to the student of medicine.

We hope the time is not far distant when a course of practical lessons in comparative anatomy will take the place of the routine lectures on anatomy in the summer courses of instruction in our medical colleges.

I. N. D.

ARTICLE XXIII. — AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By T. Henry Green, M.D. Third American Edition. Philadelphia: H. C. Lea.

We are glad to welcome a new edition of this excellent manual of pathology. The work of revision has been carefully and thoroughly done. No student can afford or ought to be allowed to graduate without at least reading some work which embodies the essential doctrines of pathology; and we know of no work

which so fully meets the wants of the student and young practitioner. It is unfortunate that this author cannot, or does not, write a better chapter on the "cell," but he will probably get to it in the next edition.

I. N. D.

ARTICLE XXIV.—PATHOLOGICAL REPORT OF THE MONTREAL GENERAL HOSPITAL, FOR THE YEAR ENDING MAY 1, 1877.

BY WILLIAM OSTLER, M.D., of McGill Univeristy. Volume I. Montreal: Davison Brothers, 1878.

This little book of ninety-seven pages includes records of one hundred post mortem examinations, made in the "Montreal General Hospital." Dr. Ostler has the faculty of describing post mortem appearances clearly and tersely, and it is refreshing to get hold of a report of hospital work which is not burdened with wearisome details of "treatment" with which pathological reports are so often embarrassed.

I. N. D.

BOOKS AND PAMPHLETS RECEIVED.

Manual of the Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D. Cl., pp. 689; 1879. Boston: Houghton, Osgood & Co.

A Clinical Treatise on the Diseases of the Nervous System. By M. Rosenthal; with preface by Professor Charcot. Translated from the author's revised and enlarged edition by L. Putzel, M.D. Cl., pp. 278; 1879. New York: Wm. Wood & Co. Chicago: W. T. Keener.

Transactions of the Medical Society of the State of Tennessee, at its Forty-sixth Annual Meeting, 1879.

Posture as a Means of Relief in Strangulated and Incarcerated Hernia, with a General Consideration of the Mechanism of Reduction. By F. H. Hamilton, A.M., M.D. Reprint from *Hospital Gazette*, June 7, 1879.

An Account of the Perineosinnexereenatur—A New Instrument for the Exploration of Sinuses, especially adapted to Gynæcological Practice. By Jacques Robinson, A.M., M.D. Reprint from *Louisville Med. News*, May 13, 1879.

Observations on Amphoric Respiration and Amphoric Respiratory Echo. By M. L. James, M.D.

The Treatment of Epithelioma of the Cervix Uteri. By J. Marion Sims, M.D. Reprint from *Amer. Jour. of Obstetrics and Diseases of Children*, July, 1879.

Twelfth Biennial Report of the Trustees, Superintendent and Treasurer of the Tennessee Hospital for Insane, Jan. 8, 1879.

Medical Heroism of 1878. By J. W. Singleton, M.D. Reprint from *St. Louis Medical and Surgical Journal*, June, 1879.

Chronic Spasmodic Stricture or Urethrisms. Second paper in reply to Dr. H. B. Sands. By F. N. Otis, M.D. Reprint from *Hospital Gazette*, June 28, 1879.

Early Medical Chicago. By J. N. Hyde, A.M., M.D.

Minutes of Medical Society of the County of New York, 1806-1878. Edited by A. E. M. Purdy, M.D. July; Part IV.

Retroversion in Relation to Laceration of the Cervix Uteri, etc. By Nathan Bozeman, M.D. Reprint from Vol. III, *Gynæcological Trans.*, 1879.

History of the Discovery of Anæsthesia. By J. M. Sims, M.D., LL.D. From *Virg. Med. Monthly*, May, 1879.

Reflex Cerebral Hyperæmia. By C. H. Hughes, M.D. Reprint from *St. Louis Med. and Surg. Jour.*

Pure Rubber Martin Bandages. Reprint from *Chic. Med. Jour. and Ex.*, Aug., 1879.

YELLOW FEVER. — This disease continues its steady progress in Memphis, and develops here and there a case in smaller country places, just as though it was deliberately showing its contempt for all the quarantines, disinfectants, fumigations and isolations, that the advocate of *germ theories* can invent. So too, in New Orleans, cases of the disease occur sporadically once in a few days just as has always been the case in seasons when the epidemic influence was not strong and in the same parts of the city. How much longer will it take the profession to learn that the best disinfectant is pure air, and the best antidote for epidemics, pure air, pure water, cleanliness of person, premises and soil?

KENTUCKY-LOUISVILLE MEDICAL COLLEGES. — These two schools, for many years claiming to be distinct and under separate charters, but run by one faculty and in one building, have finally discontinued their suspicious relationship, and hereafter each will have its own faculty and building.

Summary.

Collaborators :

DR. H. GRADLE, DR. L. W. CASE, DR. R. PARK,
DR. R. TILLEY.

PRACTICAL MEDICINE.

TUBERCULAR IRITIS.—(*La France Médicale*), July 12, 1879. A patient was presented to the "Société de Chirurgie," of Paris, by Mr. Parinaud suffering from primitive tuberculosis of the eye. There was but one opinion on the question of diagnosis. The patient was a child of twelve years, strumous; the father died five weeks previously, and the affection of the eye is referred to the same date.

The cornea presented a whitish and soft appearance over the whole inferior half. In the lower part of the iris was discernable a rose-colored tumor from which emanated other smaller tumors. In the upper part of the iris were two other tumors. By the aid of oblique illumination other little projections were noticeable, which resemble the granulations of tuberculosis, and situated near the border of the pupil. The lesions resemble hypopyon. The softening of the cornea only affected the posterior layers of the cornea. The anterior layers perfectly transparent. The fundus of the eye could not be seen which rendered the existence of deeper lesions probable. The disease displayed no marked activity.

The affected eye—the left—was wholly insensible to light. The right eye was normal. The general health was not perceptibly changed. It was not possible to discover the presence of

tubercle in any other organ. No reason whatever to suspect inherited syphilis.

The question of treatment was what elicited the discussion. To prevent a general tuberculosis, as the affection was supposed to be confined to the eye, the enucleation of the ball was advocated by Messrs. Th. Auger, Giraud, Teulon, Le Fort. Mr. Verneuil and others opposed the idea of enucleation from the fact that cretification sometimes takes place in tubercular deposits, and from the possibility of an operation exciting the disease to greater activity.

HEREDITARY SYPHILIS.

By DR. J. N. HYDE.

VACCINO-SYPHILIS; OR, THE ACCIDENTAL TRANSMISSION OF SYPHILIS BY VACCINE LYMPH.—(*Med. Press and Circular*, Ap. 9, 1879, p. 279.)

Dr. Hugh Thomson's communication to the Glasgow Medico-Chirurgical Society commences with the promise of an interesting and valuable contribution to his subject, but continues and concludes with a disappointment. As the writer had never seen a case of vaccino-syphilis, his brief review of the literature of the subject is succeeded by an extended reference to the cases reported by Mr. Hutchinson and portrayed in the "Clinical Illustrations" of that author. Dr. Thomson, referring to the demonstration by Keber, of Dantzig, that "even clear vaccine lymph contains pus and blood corpuscles," suggests that to transmit syphilis from a vaccinifer, the presence in the lymph of visible blood globules is not requisite. The views of Seaton and DePaul are adduced in favor of the possibility of greater peril in vaccinations made after the exhaustion of the first and freshest lymph supply in the arm of any given vaccinifer, Thomson calling attention to the somewhat remarkable fact that in the Italian epidemics of syphilis, the same child was taxed for a supply of lymph sufficient to vaccinate fifty, sixty and even a hundred other children. The practical rules which the general consideration of the subject should suggest are: (a.) From a single vaccinifer, not more than ten or twelve persons should be vacci-

nated. (b.) The vaccinifer should, whenever possible, be more than four months old, that the period in which hereditary syphilis most commonly is displayed, may have elapsed. (c.) When in doubt regarding the immunity of the vaccinifer, always reject the lymph, not waiting for proof of syphilis.

Dr. Thomson concludes as follows: "I have said nothing of another method of avoiding syphilitic infection in vaccination, one which may be said to afford absolute security against it, viz., *animal vaccination*, or the employment of the calf or heifer only as vaccinifers. The reason is, that the drawbacks connected with such a mode of vaccinating are so great, though of a different sort, as so far to outweigh the small, it may be said infinitesimal, advantage it may have in respect to syphilis, that it is never likely to be adopted on a large scale in this country."

SYPHILIS BY VACCINATION WITH HUMAN VIRUS. — (*Gaz. des Hôpitaux — Tol. Med. and Surg. Jour.*, Mar., 1879, p. 125.)

Virus was taken from the seven-months-old child of a mother subsequently known to be syphilitic, the infant at the time presenting all the appearances of perfect health. With the virus thus obtained, twenty-five girls were vaccinated, twelve of whom in six weeks had ulcerations at the point of inoculation, succeeded by exanthem, oral and pharyngeal ulcers, anal condylomata, syphilitic ozæna, etc. Three others had suspicious lesions in the neighborhood of the vaccine sore, which were not followed by constitutional symptoms.

INFECTION OF A NURSE BY HER NURSING. — (*Gazette Obstét.*, Ap. 5, 1879, p. 103.)

Dr. Guillery had under observation a woman with conjunctivitis, abscess near the lachrymal sac, inguinal adenopathy, and syphilitic "lichen" over the surface of the thighs and chest. When her own infant was fifteen months old, she concluded to nurse another child, and, being examined by a physician, was pronounced healthy.

The infant delivered to her charge was one month old, feeble and sickly in appearance, had a copious eruption over the thighs and legs, and fissures of the mouth and anus. It seized the

breast with difficulty, on account of the habitual obstruction of the nasal fossæ. In fifteen days, the nurse found that she had fissure of the nipple. In two months the child died, but, towards the end of the first month, the nurse discovered a macular eruption upon the surface of the chest. Meantime she had not ceased to suckle her own child as well as the stranger; the former enjoyed health up to the time of the death of the latter, when the mother noticed that it displayed an exanthem over the body, and suffered from a conjunctivitis not unlike her own. These accidents on the part of the nurse's own child were eventually recognized as fortuitous; the infant was, in short, free from the disease.

The inferences Guillery seems to draw from these facts are certainly not those which an expert would consider warrantable. A simple fissure of a nurse's nipple coming in contact with the secreting lesions of the mouth of a syphilitic infant, and becoming thus the portal of infection, must of necessity be transformed into the primary manifestations of the infectious disease. Nor is it safe to decide that such transformation has not occurred because "chancres were not seen in that locality." Much less can it be thought possible that absorption of a virus could happen at the site of such fissures and the result be a species of so-called "syphilis d'emblée." Neither is it generally to be concluded that when papular syphilides exist upon the surface of the body, the most abundant crop will occur in the regions nearest to the site of inoculation. Such a manifestation must, in any case, be regarded as quite fortuitous.

ACQUIRED INFANTILE SYPHILIS. — ("De la Syphilis Infantile Acquisée," par le Dr. Alfred Pontet; Paris, Delahaye, 1878.)

Pontet, in the consideration of his subject, devotes special attention to the questions regarding etiology and diagnosis. Under the title of "Accidental Syphilis," he considers the results of contact with the nipple and breast, vaccination, infection by the medium of toilet articles, and contagion where there is ignorance. Under the title of "Intentional Syphilis" are classed those cases which seem to result from a deplorable superstition, existing only in France, whereby it results that a female

infant is infected directly from an adult. Syphilis may, however, be intentionally communicated from other motives.

In proof of the communication of syphilis, two circumstances require consideration before arriving at a diagnosis: 1st, the existence of an indurated chancre, it matters not in what region of the body; 2d, the traces of a traumatism, more or less violent, with or without rupture of the hymen. The author is inclined to believe that tertiary manifestations are rare as the result of acquired infantile syphilis, the disease in such cases attacking organs which are in the phase of evolution, and which with greater readiness admit of its modification or elimination.

HEREDITARY TRANSMISSION OF SYPHILIS. — (*Brit. Med. Jour.*, April 26th, 1879, p. 631.)

In Mr. Milton's case, a father was supposed cured before marriage, but had, nevertheless, the first-born dead; the second, a child healthy save for a slight eruption; the third, without any symptoms of disease; the fourth, distinctly syphilitic.

HEREDITARY BONE-SYPHILIS, MULTIPLE FRACTURES AND PSEUDO-PARALYSIS. — (*Obl. f. Chir.*, No. 4, 1879; from *Bull. de la Soc. de Chir.*)

Polaillon reports the case of a woman, 21 years old, who had flat condylomata in the second month of pregnancy, and gave birth to a child at full term. This child had fracture of the left humerus and paresis of the right arm and lower extremities. The bones about the elbows and the entire left femur were thickened, and painful on pressure. There was no other external sign of syphilis. The child died in eight days of intestinal catarrh. *Post-mortem*, there was found fracture of the humerus and dislocation of the upper fragments without the formation of callus, though there was periosteal thickening. The right humerus was fractured at the same point without periosteal lesion and dislocation. Both fractures were respectively nine and eleven millimeters from the epiphyseal cartilage. The right femur was one-half centimeter longer than the left. The latter was of decidedly smaller volume in several places. There was a transverse fracture of the left femur without dislocation, about five centimeters

below the epiphyseal cartilage. In the right femur there was a fracture near the upper end. Various enlargements were found on the other bones, with porotic condition in places. The fractures were considered as intra-uterine and not post-partum, in consequence of the evidences of inflammation.

THERAPEUTICS.

CHOLAGOGUES.—(*Br. Med. Jour.*, Feb. 8., '79.)

For some time a commission, with Dr. Rutherford, of Edinburgh at its head, has been investigating the biliary secretion of the dog, with reference to the action of cholagogues. Having at last found itself able to give a summary of results, we give a few of its conclusions concerning the actions of well known remedies, calling attention, however to the fact that they were obtained on dogs, and may not be exactly similar with the human race.

Podophyllin, aloes, rheum, euonymin, sanguinarin, iridin, leptandrin, colocynth, jalap, sodium phosphate, mercuric chloride, phytolaccin, hydrastin, juglandin, sodium and ammonium benzoate, benzoic acid, sodium salicylate and nitro-muriatic acid, all are more or less powerful hepatic stimulants, positively increasing the amount of bile secreted, and all except the last five being more or less stimulant or irritating to the intestinal glands. Senna, colchicum, taraxacum and scammony are but feeble hepatic stimulants. Gamboge, castor oil and calomel stimulate the intestinal glands, but not the liver. Ipecacuanha is simply a hepatic stimulant. Magnesium sulphate is only stimulant to the intestines, as are also ammonium chloride and menisperm.

Calabar bean stimulates the liver, and atropia antagonizes this action, but atropia given alone does not affect the secretion of bile.

The authors have also found, in man, four grains of iridin, at night, a certain remedy for "biliousness." Euonymin, in two grain doses, also has the same effect. Both are liable to be followed by depression, if the dose be too large, and both should be followed by a saline aperient in the morning.

Items.

AMERICAN PUBLIC HEALTH ASSOCIATION.—As it may interest some of our readers, we insert the following notice [Ed.] :

To Members of the American Public Health Association :

GENTLEMEN :—At a meeting of the Executive Committee, held in Washington, January 3, 1879, it was decided that the principal subject for discussion at the next annual meeting of the Association, to be held in Nashville, Tenn., 18th–21st November, shall be the sanitary condition of cities and towns, especially those of the Southern States.

In selecting a subject of so wide a scope, the committee considers that it will be expedient, if not indeed indispensable to the attainment of useful results, to limit the inquiry to certain specified branches of the general subject rather than to attempt to cover the entire ground of city sanitation.

A few years ago a committee appointed by the Association prepared a series of elaborate schedules of questions for facilitating such an inquiry, which have been recently published in pamphlet form as Circular No. 2, of the National Board of Health. A copy of this pamphlet will be furnished to any member of the Association who desires to take a part in the proposed discussion, on application to Dr. T. J. Turner, secretary of the National Board of Health and a member of the Executive Committee of this Association. His address is "Office National Board of Health, Washington, D. C."

The Executive Committee recommends the following subjects of inquiry : Water Supply, schedule C ; Drainage and Sewerage, schedule D ; Disposal of Garbage and Excreta, schedule H ; Slaughter Houses and Abattoirs, schedule K ; Public School

Buildings, schedule M ; Public Health Laws, Regulations, etc., schedule R ; Expenses of Municipal Sanitation, schedule U.

Attention is also called to the following resolution presented by Dr. A. Gihon, U. S. N., at the last annual meeting :

“Resolved, that the Executive Committee be directed to provide for the investigation and discussion at the next annual meeting, of the most effective means for preventing the spread of venereal disease.”

Members who propose to consider these subjects, or who may desire to treat exhaustively some special subject of their own selection, are invited to prepare papers not to require more than thirty minutes in reading, and to forward titles and abstracts in accordance with Sec. VIII of the Constitution.

J. L. CABELL,

*President American Public Health Association,
and Chairman of Executive Committee.*

UNIVERSITY OF VIRGINIA,

CHARLOTTESVILLE, Aug. 15, 1879.

EDUCATIONAL PROGRESS. — The *Medical Record*, of New York, for August 23d, says : “In accordance with a long cherished plan, the medical department of Yale College announces a graded course of instruction extending over three years.” A fair standard of preliminary education is also required before admission. Thus the good work progresses. But when will the *Medical Record* announce that the New York medical schools have followed so good an example ?

PROF. WM. H. BYFORD, M.D., has just returned from Europe. He went abroad to read a paper, by special invitation, before the British Medical Association, at Cork. He selected as his subject, “The Action of Ergot in Intra-Uterine Fibroids.”

PROF. JAS. NEVINS HYDE, M.D., is absent from the city, attending a meeting of the American Dermatological Society, and in the next number of the JOURNAL will doubtless give our readers the benefit of his visit.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Sept. 1 and 15.

West Chicago Medical Society—Mondays, Sept. 8 and 22.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 p. m., Ophthalmological, by Prof. Holmes; 3 p. m., Otological, by Prof. Jones.

Mercy Hospital—1:30 p. m., Surgical, by Prof. Andrews.

Rush Medical College—2 p. m., Dermatological and Venereal, by Prof. Hyde; 3 p. m., Medical, by Dr. Bridge.

Woman's Medical College—2 p. m., Dermatological, by Dr. Maynard.

TUESDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.

Mercy Hospital—1:30 p. m., Medical, by Prof. Hollister.

WEDNESDAY.

Chicago Medical College—1:30 p. m., Eye and Ear, by Prof. Jones.

Rush Medical College—3:30 to 4:30 p. m., Diseases of the Chest, by Dr. E. Fletcher Ingals.

THURSDAY.

Chicago Medical College—1:30 p. m., Medical, by Prof. Quine.

Rush Medical College—3 p. m., Diseases of the Nervous System, by Prof. Lyman.

Eye and Ear Infirmary—2 p. m., Ophthalmological, by Dr. Hotz.

FRIDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.

Mercy Hospital—1:30 p. m., Medical, by Prof. Davis.

SATURDAY.

Rush Medical College—2 p. m., Surgical, by Prof. Gunn.

Chicago Medical College—2 p. m., Surgical, by Prof. Isham; 3 p. m., Neurological, by Prof. Jewell.

Woman's Medical College—11 a. m., Ophthalmological, by Dr. Montgomery.

Daily Clinics, from 2 to 4 p. m., at the Central Free Dispensary, and at the South Side Dispensary.